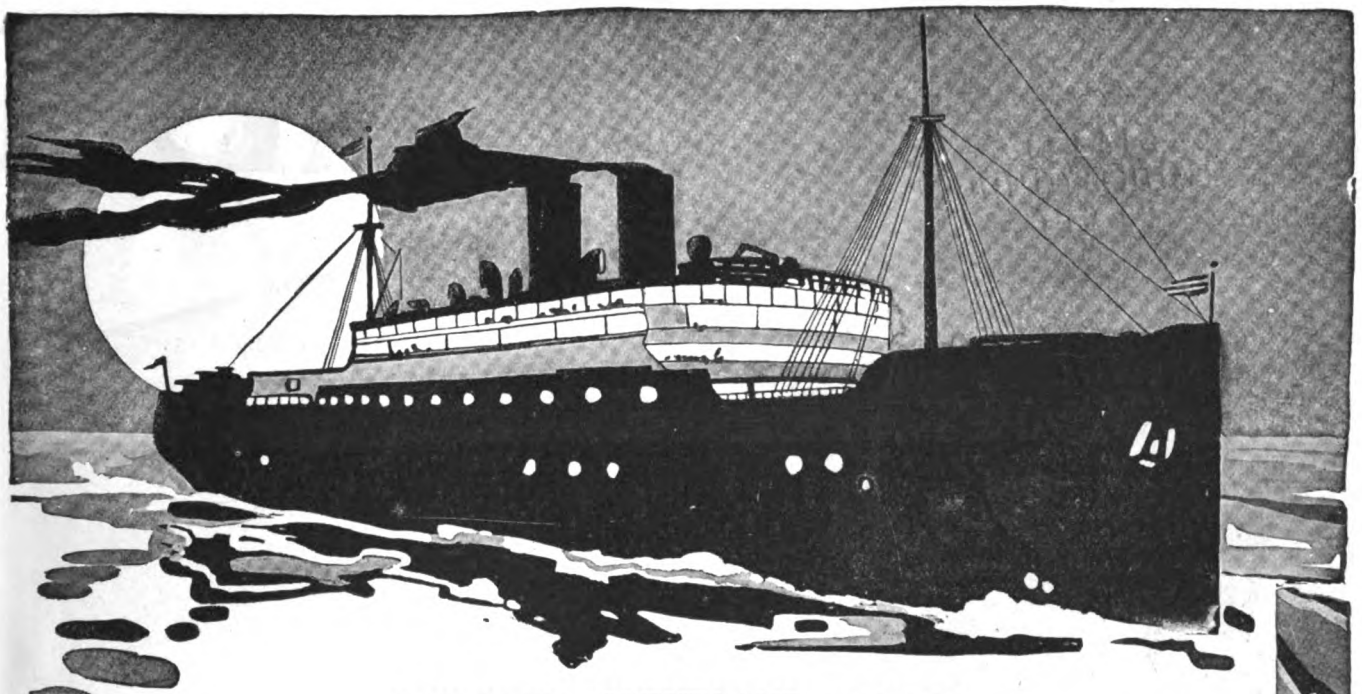


NEW YORK—CLEVELAND—LONDON

# Marine Review

THE BUSINESS OF TRANSPORTATION BY WATER

Vol. 52 JANUARY, 1922 No. 1

Published by The Penton Publishing Co., Cleveland, Ohio, U. S. A.

## IN THIS ISSUE



BRANCH OFFICES

BOSTON - 426 Old South Bldg.
CHICAGO - - - - 1147 People's Gas Bldg.
CINCINNATI - 501-505 Commercial Tribune Bldg.
HARTFORD - P. O. Box 1231
NEW YORK - - - - 220 Broadway
PITTSBURGH - - - - 2148-49 Oliver Bldg.
SAN FRANCISCO - - - 8 Monadnock Bldg.
WASHINGTON - - - - - 40 Metzerott Bldg.

FOREIGN OFFICES

PARIS, FRANCE 224 Rue de Rivoli LONDON, ENG., 2-3 Caxton House, Westminster, S. W. 1.
BIRMINGHAM, ENG. - Prince's Chambers

*Cable Address IROTRAPEN, London*

Subscription, United States and its possessions, $3 per year; Canada and other Foreign Countries, $4 per year. Single copies 25 cents. Back numbers over three months 50 cents. The Cleveland News Co. will supply the trade with MARINE REVIEW through the regular channels of the American News Co. European Agent, The International News Co., Breams building, Chancery Lane, London, E. C., England.

Member, the Audit Bureau of Circulations and Associated Business Papers, Inc.
Entered at the Post Office at Cleveland, Ohio, as Second Class Matter, under the act of March 3, 1879

Shipbuilding Ship operation Ship maintenance

# Marine Review

NEW YORK CLEVELAND LONDON

VOL. 52 JANUARY, 1922 No. 1

# Big Yards Hard Hit by Navy Cut

## Several Eastern Plants Make Real Sacrifice for Disarmament —Liners Offer Best Prospect for Replacing Naval Work

DISARMAMENT eliminates orders which have been the backbone of several of the largest American shipyards. In one case, naval construction has been averaging about 75 per cent of the work of a big eastern shipyard and in another case 50 per cent. In both cases officials of these plants have quickly forgotten their individual loss and are supporting the proposals.

As one shipbuilder phrases it, "Supporting the Hughes program is a natural position for the shipyards since we would rather build commercial ships than navy vessels for the same reason that a contractor would rather build houses than jails."

The proposed holiday would destroy much of the inherent power of American yards through the disruption of their present staff of trained executives and experienced force of skilled workmen. In the case of Japan, a similar result would be expected but England probably would pull through the holiday period in better shape due to her greater success in obtaining orders for big liners.

"We are placing our entire trading asset on the scales," said one of the country's shrewdest shipbuilders, "And 10 years from now we are likely to find ourselves robbed of this asset and in a weakened position either for continued trading or for resuming battleship work. This trading asset is our potential shipbuilding capacity which would effectually disappear after 10 years of idleness."

American shipbuilders, without exception, unite in supporting the American disarmament program. The general conviction that the proposal will lead to lower federal expenses and will make future wars unlikely is a sufficient reason for the support given by the shipbuilders. The program represents a direct monetary loss to the shipbuilding industry far in excess of the sacrifice demanded of any other trade. Judge E. H. Gary, head of the Steel corporation, and Charles M. Schwab, chairman of the Bethlehem Steel group, have officially placed the steel industry on record in hearty support of the disarmament proposals. The steelmakers will be called upon to make the second largest financial sacrifice but the cost to them is slight as the naval consumption of steel represents an extremely small part of the country's steel production, less than one-half of 1 per cent.

A study of the relation of the disarmament program to the shipbuilding industry demands attention not only to the effect upon the immediate operation of the yards but upon their very existence in the future. Arthur Balfour, head of the British delegation, gave an almost immediate consent to the American disarmament proposals but it is significant that his reply stressed the importance of making provision for maintaining some degree of shipbuilding capacity in operation.

### Some War Risk Insurance

A 10-year holiday in naval construction will give a tremendous relief from taxation but much of the money thus spent in the past has been the price which the American people have paid to build up a few large, well managed and capable constructing plants. This form of indirect subsidy paid remarkable dividends during the world war.

Without naval construction in the 15 to 20 years before the war, shipbuilding—at least of vessels capable of overseas service—practically would have disappeared from the list of American industrial accomplishments. During that period, shipbuilders along the Great Lakes constructed a remarkable fleet of large vessels but these are designed only for lake service and these yards are barred by nature from delivering big transoceanic vessels. Salt water yards had relatively little big ship construction.

Practically the only American seaboard shipbuilding plants which had sufficient business to permit the development of efficient organizations and modern, economical plants were those handling naval contracts. Thus these yards were able to meet the world war emergency for ships by supplying the technical and executive talent required to build up the great number of new yards necessary to satisfy this demand. In this way, the naval appropriations made before the war paid generous dividends to the country in its time of need.

Stoppage of naval construction for 10 years would inevitably destroy much of America's ability to outstrip its competitors in either merchant or naval construction. Proof of this statement is found in the fact that the United States has been able to build big warships for relatively a few years only. Young graduates from the naval academy at Annapolis, up to recent years, were forced to take post-graduate courses in naval architecture at European colleges in order to secure an adequate insight into naval construction. Some men, now active heads of the largest American shipyards, secured such training. But the development of naval construction in this country in the last 20 to 30 years has been brought to such an advanced position that suf-

ficient instruction now can be obtained in American colleges.

The first modern battleship built for the American navy was the original TEXAS, constructed at the Norfolk navy yard in the late '80's. Her construction was made possible only through the purchase of plans from English shipyards. The experience and education received in building the TEXAS were extended in the construction of other battleships. During the last 10 to 15 years, the construction corps of the navy has had engineers at least equally competent to those in the naval department of any other country.

Development of the science of actual ship construction ran parallel to this growth in technical capacity. The few yards which specialized in and grew powerful through naval work rapidly gained an ability which ranged them side by side with construction units of other countries.

### Can Outbuild Competitors

Expansion during the war, with its development of additional yards handling naval work, particularly lighter craft such as cruisers, destroyers and submarines, has placed American naval construction capacity ahead of that of any other nation. This position is reached not only through the number of shipbuilding ways but is the result of the country's industrial leadership with the tremendous capacity for steelmaking, engine building, gun forging and the other allied trades which go to complete a modern sea-fighter.

Recognition of the potential warship building strength of the country is evidenced in the ready acceptance by Great Britain of the proposal that her battle fleet should be put on an equal footing with the American. Praise for America's part in suggesting disarmament should not obscure the equally commendable willingness of England and Japan to accept such a proposal. Full credit can be given to England for a sincere desire to meet the postwar demand for lower government expenses and for the removal of any obstacles blocking the path to peace. But even with the fullest allowance for her cordial support of the American program, this is the first time in modern history that England has not met another nation's suggestion of equalized navies by redoubling her own warship program. Americans are glad to feel that her consent is largely due to her sincerity of purpose in meeting this constructive effort to establish permanent peace. But the potential building power of American shipyards added a strength to the Hughes suggestion that demanded respectful consideration.

"Disarmament is a fine thing but we should watch our step," declared Homer L. Ferguson, president of the Newport News Shipbuilding & Drydock Co. "The four cruisers England has just scrapped were not ordered from the shipyards until after invitations to attend the disarmament conference had been received from Washington. Practically no money has been expended upon them, even the plans are not finished."

### Save the New Ships

Mr. Ferguson, who perhaps, in 30 years of building battleships, has acquired as much information on this subject in its worldwide field as any man in this country, is also strongly opposed to scrapping the newest ships of the United States or stopping work on those now nearly completed, while America retains in service, under some scheme for disarmament, several older vessels.

"It's folly," he said. "A man does not throw away a new suit of clothes and keep an old one; he does not move out of his house into the woodshed."

On the question of the limitation of size of fighting craft this shipbuilder has also decided opinions. "If you limit the size of capital ships, then you must limit the size and effectiveness of their enemies," he says. "To protect ships of the line against attack by destroyers and aircraft they must be heavily armored. You must have a heavy ship.

"Now, if you let a nation build as many planes and submarines as it pleases and increase the effectiveness of them, and you do not allow builders of capital ships to build them strong enough to resist their attack, why, the capital ships will be worthless and the nation which owns the other kind of fighters will have you by the throat.

"Let us be frank and fair about this disarmament business," Mr. Ferguson concluded, "but let us make sure the other nations come clean, too." He said England would lay off about 47 men as a result of her order to suspend work on the four cruisers, while the United States would put 25,000 men out of work.

Work for the shipyards which will lose the naval construction counted upon to pull them over the present sag in ship demand, will be hard to find. Measured in terms of freight demand ships are so abundant at the present time that idle tonnage is tied up in practically every port throughout the world. But this excess supply is not finely balanced. Freight carriers are abundant but passenger liners and combination cargo and passenger carriers are still needed. This is the natural result of the war tendency to build the type of vessels imperatively demanded to supply the essentials necessary for carrying on the war. And at the same time liner tonnage was being sharply depleted by the torpedoes of the enemy submarines.

Under this condition it is only natural that replacement work for these yards has brought out additional discussion of a plan for using their facilities for passenger ship construction. The plants are accustomed to big ship building and are fully able to handle the problems met in constructing modern liners. Scrapping of ships now on the ways entails not only the expense of adjusting contracts but the additional cost of removing the ships or salvaging their material. The argument favorable to the use of these yards for liner construction centers on the fact that the money spent in scrapping would be a dead loss which could appropriately be spent in the completion of a useful vessel.

This argument was tremendously strengthened early in December by the declaration of Joseph W. Powell, president of the Emergency Fleet corporation and one of the country's most capable shipbuilders, that the big battle cruisers now under construction could be transformed into excellent passenger liners.

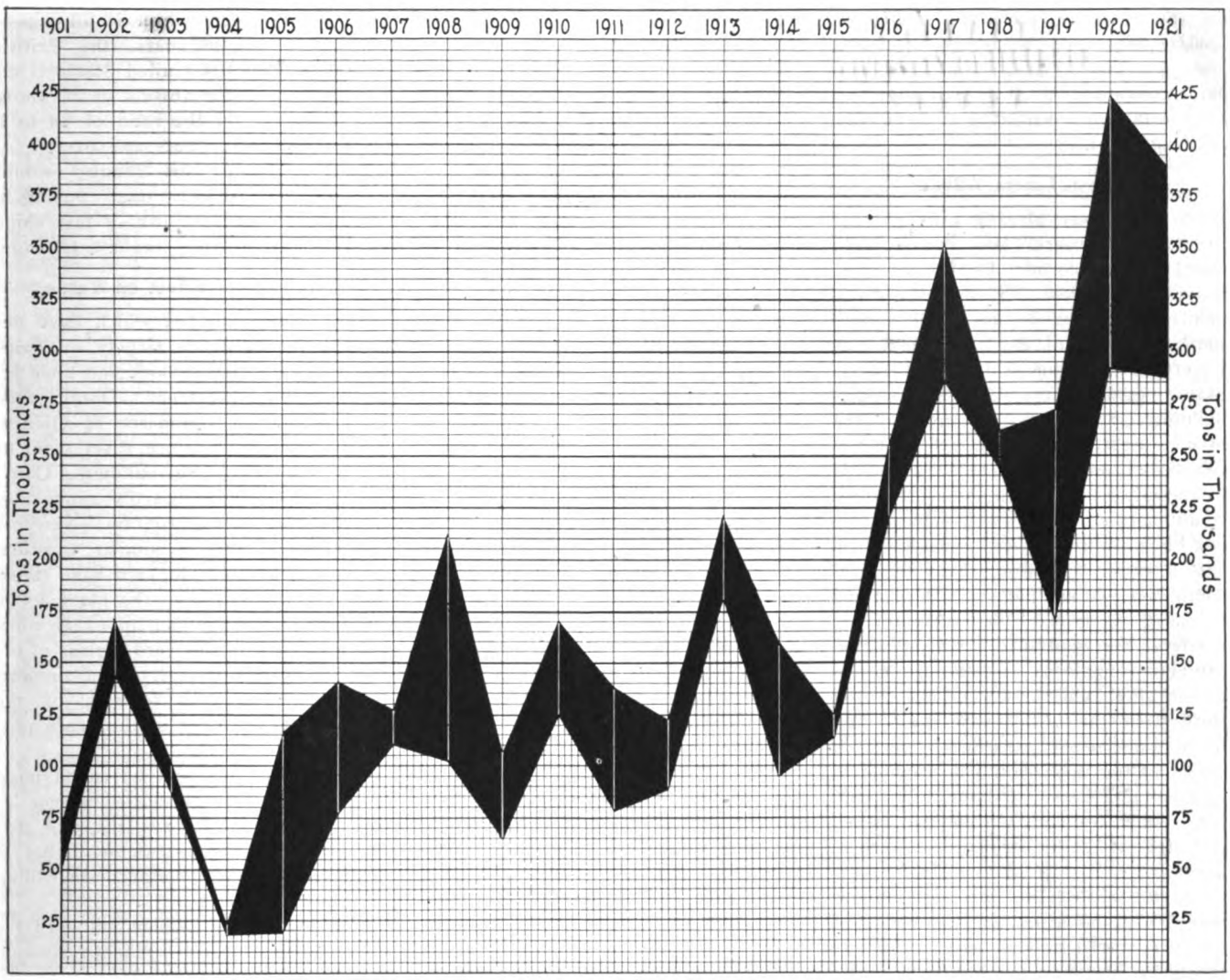
### Would Save Battle Cruisers

Mr. Powell thinks this plan would be a good one for the United States to put into effect as it would give this country the highest-speed passenger vessels on the Atlantic. Six vessels of this type are in the United States' building program, but not more than three of them could be used in the transatlantic passenger business, Mr. Powell said.

"It is entirely practical to build the battle cruisers over to make splendid high-speed passenger ships," Mr. Powell said, "and a good share of the money already spent on them would be saved. The vessels could never be rebuilt into battle cruisers, so that the claim that we were taking advantage of the situation and doing something to add strength to our navy under cover would be discounted."

All the battle cruisers in question were named for frigates famous in the annals of the United States. Each is 874 feet long, 101 feet beam, has a mean draft of 31 feet and a displacement of 43,500 tons. They include the CONSTELLATION and RANGER, at the Newport News Shipbuilding & Drydock Co.; the CONSTITUTION and the UNITED STATES, which were to have been built at the Philadelphia navy yard; the LEXINGTON at the Fore River, Mass., yard of the Bethlehem company and the SARATOGA, at the Camden, N. J., plant of the New York

# Ratio of Naval Work to Commercial Is 1 to 2




SHIPBUILDING is the industry called upon for the greatest sacrifice by the disarmament program scheduled for adoption at the Washington conference. Evidence of what the program means to several leading shipyards is given in the accompanying chart.

The shaded lower section shows in graphic form the tonnage of commercial vessels constructed by three of the largest eastern yards in each year since 1900. The black section represents graphically the naval tonnage built by the same yards in the same years. The addition of the shaded and black areas for any one year gives, of course, the total construction by these yards for that year. For example, in 1921 these yards built 287,619 tons of merchant ships and 101,610 tons of naval ships, a combined output of 389,229 tons.

Exact comparison between naval and commercial construction is difficult. Commercial ships are generally expressed in gross tons or in deadweight tons, the measure of value of the ship depending on its cargo-carrying and revenue-earning capacity. Naval ships are always expressed in displacement tons which give an accurate record of the vessel's size as questions of freight transportation and revenue have no bearing. In addition, the character of construction is different. The chart is expressed in terms of displacement tons, giving as clear a picture of relative values as can be drawn.

The three yards included in the above record are the New York Shipbuilding Corp., Camden, N. J., Newport News Shipbuilding & Dry Dock Co., Newport News, Va., and the Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia. These yards have handled the bulk of the naval construction.

During the 21 years covered by the chart these three large shipyards have turned out 2,852,940 displacement tons of commercial ships and 1,111,613 displacement tons of naval ships. Warships have thus represented 28 per cent of the work of these yards. In actual importance naval construction ranks higher since such work has served as a backlog in times of depressed commercial conditions. Before the shipbuilding expansion of the past seven years, that is, in the period of 1901-14, naval construction was 32 per cent of the work done by these yards. This one-third reserve has been an important asset in maintaining the yards in operation. As an illustration, now that commercial buyers are few, instead of 32 per cent as shown by the above chart, one yard places its naval work as 75 per cent of its business and another yard has a 50-50 ratio between naval and commercial work.

Of nine battleships now under construction, three have been launched leaving only two under way at private yards. Four of the six battle cruisers are being constructed in private yards. Other naval construction in private yards at the present time, includes 10 scout cruisers, 1 aircraft tender and 34 submarines. One transport, 12 destroyers and 7 submarines are authorized but are not under construction.

Shipbuilding Corp. The LEXINGTON has been constructed up to the third deck, or just above the water line.

According to the plans of Mr. Powell, the ships, which represent an outlay of $240,000,000, could be transformed into passenger vessels, greater in speed and more economical in fuel consumption, in ratio to the work demanded of them, than anything afloat.

### Fastest Liners Afloat

The machinery already provided for the battle cruisers, Mr. Powell said, would be suitable for the propulsion of passenger vessels. Mr. Powell's statements came after he has made a personal inspection of the LEXINGTON, battle cruiser building at the Fore River, Mass., yard of the Bethlehem Shipbuilding Corp., with the definite idea in view of determining whether or not vessels of this type could be salved to the advantage of the American merchant marine. Mr. Powell said that to put his plan into effect a vessel of the battle cruiser type would have to be, if completed beyond that stage, torn down to the third deck. "Then take off the 'blister'," he continued, "which is the protection against torpedoes, and the armor shelf, and build on top of the third deck the ordinary floating hotel of a high speed passenger liner. A vessel of this type would be capable of making 32½ knots an hour, but would not under ordinary circumstances be operated at a higher speed than 26 knots.

"A vessel rebuilt in this manner would have no protection against large gun fire, would have no armament, and would be just as much scrapped, so far as the navy is concerned, as though broken up. It would be cheaper to build an entirely new battle cruiser than to take off the passenger accommodations, replace the armor and build turrets for the armament. The vessels are electrically driven and would be a new type of passenger liner. They would be more economical than anything now operated on the north Atlantic. This would be the only place to run vessels of this type.

"If the United States had vessels of this kind it would be very helpful to shippers. It also would be helpful to the American merchant marine to get three of these ships under the American flag in the north Atlantic passenger business."

The vessels, if converted into passenger liners, would be the only really unsinkable passenger liners afloat, Mr. Powell said. If a vessel of this type should meet with a similar accident to that which overtook the TITANIC, he declared, it probably would list a little, but, because of the four sets of bulkheads with which it is provided it would not sink. Mr. Powell said the other "so-called unsinkables will sink." A battle cruiser which is already launched, Mr. Powell stated, would be too expensive to convert into a passenger vessel.

These vessels, after conversion into liners, according to Mr. Powell, would accommodate 1000 first class, 1000 second class, and 2000 third class passengers. They also would have space for about 5000 tons of cargo each, but, Mr. Powell pointed out, it is very unlikely that so much would be carried.

Even a complete stoppage of new construction for 10 years would leave some naval work to be done. Repair and upkeep of the curtailed fleets would demand the services of a small organization. Private shipbuilders have opposed for many years the tendency to increase the equipment of navy yards with the natural result of placing under government operation an increasing percentage of naval work. This tendency is shown by the conditions today where four of the six battleships now on the ways are being built in navy yards and two of the six immense battle cruisers are also being constructed directly by the navy department.

The repair and upkeep of the battle fleet during the next 10 years would probably be given over to the navy yards. If this course is followed, new construction of battleships started at the end of the holiday for replacement purposes would inevitably go to these government plants as the private yards would have lost much of their present competitive power.

### Merchant Marine Becomes Important

The statesmen gathered at Washington have clearly foreseen the effect of naval disarmament on merchant shipping. The American proposal, as given by Secretary of State Hughes, pointed out the evident truism that from the standpoint of national defense a merchant marine gained in inverse ratio as naval strength declined. This means that a country's fighting strength on the seas from now on must be measured by her effective merchant ships.

If the 5-5-3 naval program is adopted by the conference, the net result will not put the United States on an equal footing with Great Britain and 66 per cent stronger than Japan. The real measurement compels the addition to each country's naval strength of that part of its merchant marine capable of conversion to military use.

England far surpasses any other country in this class of merchant ships. Considering vessels of 8000 tons or more, suitable for naval use, Great Britain has 234 ships of this type already completed and the United States only 54, a ratio of 4.3 to 1 in favor of Great Britain. Counting in such ships now under construction, the British advantage increases to 5 to 1. On the basis of speed, which is all important for naval purposes, the British advantage over the United States is on a 5 to 1 ratio for vessels of 22 knots and over, and on the ratio of 4.4 to 1 on vessels of 12 knots and over.

Against Japan, this country would still maintain an advantage, having a somewhat larger number of fast ships as well as a greater seagoing tonnage.

### Summary of Effect on Yards

Several communities which have depended for existence largely on shipyards handling naval work find their future seriously threatened. Despite this, the chamber of commerce of Quincy, Mass., home of the Fore River plant of the Bethlehem Shipbuilding Corp., passed a resolution heartily supporting the objective of the program. Newport News, Va., takes a similar position. Executives of that shipyard have stated their intention to keep the plant active although the elimination of naval work takes away from this yard a class of orders which has been its chief support.

In summary, the reaction of the shipbuilding industry to the peace program is as follows:

These shipyards will be called upon for the greatest sacrifice—but fear of this loss is swept aside by the hope that the program will accomplish what it promises. The shipbuilders are willing to support the test.

The end of the holiday will find the American yards in a weakened position to handle naval construction as contrasted with their ability today to outstrip either or probably both of their major competitors in building battleships.

The shipbuilders affected are naturally hoping that the money which would be a dead loss in scrapping the ships will instead be put to useful service by completing those vessels which can be adapted for commercial use.

The shortage of big passenger ships offers the solitary outlet by which the yards, which lose their present naval construction, hope to utilize their big plants, trained technical staffs and skilled workmen.

---

According to the latest reports of Lloyds, the number of steam and sailing vessels totally lost or condemned in 1920 was 561 and totaled 645,603 tons. Of these 255 were wrecked, 60 abandoned at sea, 80 foundered, 43 missing, 52 burned, 36 lost in collision, 9 broken up and 25 lost. Of this number the United States lost 108 vessels of 159,694 tons and Great Britain 163 of 160,503 tons.

# When Fighting Ships Are Junked

## Imperialistic Ambitions Will Be Expressed by Nations in Their Merchant Fleets — United States Becomes a Minor Power

BY V. G. IDEN

CHAIRMAN Albert D. Lasker of the shipping board announced in New York in late November that the government has discovered that it is impossible to operate a ship under the American flag as cheaply as under any other flag and that the difference in such cost has been fairly accurately learned. Therefore, he promised congress will be asked to grant some proper aid to the American merchant marine and will be asked to grant such aid during the year 1922. After such a definite statement as this, some form of subsidy is expected to form the basis of the President's special message to the first regular session of sixty-seventh congress promised in a few weeks. Subsidy has a nasty ring to it in the ears of many politicians and it is reprehensible to many of the voters of the United States. But today the administration believes that a different situation confronts the country and this difference is accentuated by the international conference on disarmament which is meeting in Washington.

No sooner had the word gone forth that the leading nations of the world would limit their naval armaments and practically "take a recess" for 10 years, than petitions began flowing Washingtonward appealing for greater aid to merchant shipping. Frank D. Munson, president of the Munson Steamship lines, declared that it was his opinion that the government should utilize several millions of the money saved by not building warships to construct fast and luxurious passenger liners which the government could allocate for operation in the transatlantic service. From another source, it was suggested that the materials purchased for the construction of six 35-knot battle cruisers, which would be scrapped under the international agreement, be used for building 25-knot passenger vessels.

This latter was a suggestion from Maine men who pointed out that under their plan the government of the United States would actually be saving while the shipbuilders and contractors on the discarded naval vessels would be insured against losses. Five of the battle cruisers are about 18 per cent completed and can readily be converted to passenger ships of 25 knots. The keels and under-water work do not differ materially from those of commercial ships. The upper armor can be discarded and in other respects the ships present no great difficulty in making the change.

These are but some of the various suggestions that have been sent on to Washington. Not all that have gone forward contain equal merit. Representative Simeon D. Fess of Ohio, chairman of the Republican congressional committee, says: "The contemplated saving of several hundred millions of dollars through the limitation of armaments will result in hundreds of attempted raids on the United States treasury with freak legislation." That is a true statement and at the same time it indicates a temper on the part of the government which must not be forgotten when subsidy or any other form of maritime aid is requested. The original intention was to limit armaments that taxes could be reduced. If that is to continue the basis of the negotiations, much of the talk regarding the continuance or expanison of governmental aid to merchant shipping is pure bunk.

### Shipping Directly Affected

On the other hand various eminent American shipping men are of the opinion that it is impossible to dismiss the problem of the merchant marine if naval armaments are to be controlled. One of these who has expressed himself is Emmet J. McCormack of Moore & McCormack Co., who insists that naval armaments have a direct bearing upon the merchant navies.

"I am inclined to indorse the theory," said Mr. McCormack, "that genuine limitation of armament as a means of preserving peace comprehends the merchant navies of the world. The merchant navies of Britain, United States and France were indispensable weapons during the late war." He added that an agreement on limitation of merchant navies would go far in the direction of removing the provocation of war among ambitious nations.

This was the problem undoubtedly which Chairman Lasker had in mind when he told in his speech before a New York audience that the government would be called to grant aid to the merchant marine. Chairman Lasker declared that by extending the coastwise laws to the Philippines and excluding foreign ships from trading in those routes, the country would be offering adequate protection to its freight and passenger vessels crossing the Pacific. But it is not possible to insure protection from foreign competition in the trade with the West Indies and with South America, both of which trades, Mr. Lasker declared, are by nature designed for the American merchant marine. This country has been able to exclude the foreign lines from trade between its ports and the West Indies rather effectively, but it is an entirely different matter in the South American trade. The Royal Mail Steam Packet Co., one of the mightiest of the British subsidized lines, is serving ports in the United States and ports on the west coast of South America, making use of the American-built Panama canal to do it. And the Lamport & Holt line is running its British ships between New York and the River Plate.

It is easy for American shipping firms and American business houses to recognize the right of foreign merchant vessels to serve direct between their own ports and the United States. But it is difficult to understand a quick surrender without a struggle to a European line of the trade between American ports and the ports of a friendly country. To meet just that kind of competition is the present problem of the United States. It is just as requisite for the American business man to fight it as it is for the American steamship owner. American steamship owners have been holding to the radiant dream of the time when the maritime nations of the world will come together and agree as to the limits of any one nation's merchant marine. An international conference on shipping has just been held in London. It was hoped that the conference there would pave the way for an international agreement, but such was not the case.

H. F. Alexander, president of the Admiral line, said: "There should be an agreement among the nations to sink the surplus merchant tonnage of the world." About the same time

Sir Owen Philipps, president of the chamber of shipping of England, was quoted as saying that he thought it advisable that a large number of the older vessels and inferior ones built for emergency during the war should be scrapped. These suggestions are all pertinent but so far have no weight whatsoever because it requires an international agreement to put them into effect.

Without a thorough understanding as regards merchant navies, the Washington conference on the limitation of armaments will adjourn with the fundamentals as regard nationalistic aspirations just where they have always been. A limitation placed upon the number of battleships that can be built does not limit the number of PRINZ EITEL FREIDERICHS or MAURETANIAS. Ships of these types were the result of an expression of nationalistic aspiration, and that spirit is not to be killed by the Washington conference. The limitation of naval armaments only gives this country's competitors another opportunity to continue that expression. The lessons of the past clearly foretell the future.

Great Britain has paid generous mail subsidies to her chief steamship lines. In that way the Royal Mail Steam Packet Co. was started and it was through mail subsidies that this line has grown to such magnificent proportions. England also paid admiralty subsidies to her fastest vessels, such as the MAURETANIA and LUSITANIA. In addition Great Britain has paid retainer bounties to many thousands of her seamen. The British method of granting bounties and subventions has proved extremely effective in building up worldwide services under the English flag. The British maritime bounties have not been scattered but paid out in lump sums to special lines and these special lines have grown powerful and been a protection to the smaller independent English lines.

On the other extreme, France has given mail subventions to her great steamship lines, construction bounties to her shipyards, and navigation bounties to all French shipping, steam or sail, engaged in overseas commerce. Italy has granted mail subventions, construction bounties, and navigation bounties to all her ocean vessels, steam or sail. Japan has a most comprehensive system of national aid to shipping—bounties to shipyards, subsidies to mail lines, bounties upon navigation. Japan's ocean fleet had increased prior to the war more rapidly than that of any other nation, and increased so rapidly during the war that today Japan is the third maritime nation.

### Subsidies Universally Given

But maritime subsidies have not only been the rule in the past of those nations which the United States invited to Washington to participate in the international conference on naval armaments. Subventions were the rule of all the maritime nations of the world prior to the war. That was the way in which Germany and Austria-Hungary came to the front on the seas. Holland granted subventions to her colonial mail service. Spain granted subventions and other privileges to her ocean mail lines. Denmark gave mail subsidies. Sweden not only granted mail subsidies but extended loans for building vessels. Norway granted direct bounties on shipbuilding and gave mail subsidies.

China, like the United States, prior to the war granted very little help to her maritime interests, to the encouragement of her shipyards and steam lines, or to the development of her seamen. She has maintained a policy of *laissez faire* in overseas navigation. As a result the merchant tonnage of the Chinese, like that of the United States prior to the war, was negligible.

What the nations have done in the past is a guide of what may be expected of them in the future. France thought nothing of spending $23,687,000 between 1881 and 1893 and an addition of $29,148,000 between 1893 and 1901 in construction and navigation bounties. England did not hesitate to advance $12,652,000 to the Cunard line to build two new ships. Italy paid out $28,852,000 in bounties between 1886 and 1913. Japan expended over $53,000,000 in marine bounties between 1897 and 1911. Prior to the Civil war even the United States was inclined to recognize the necessity of granting a slight indirect aid to her marine and paid out sundry sums for carrying the mails via American ships. Between 1847 and 1858, the United States expended some $14,400,000 for carrying the mails. That is the nearest she ever came to a mail subvention. But while the government was acting so niggardly in regard to the merchant marine, it made between 1850 and 1870 a total of 133 separate grants of public lands to nearly as many railroad companies. These railway grants included some 212,000,000 acres of public lands. This is exclusive of gifts of valuable terminal rights, municipal rights of way, harbor rights and other favors. Nor does it include loans or gifts from the government, states, counties and cities amounting in the aggregate to many hundreds of millions. The results from this niggardly policy toward the American merchant marine are readily apparent. In 1880, the total American capital invested in ships engaged in the foreign carrying trade was only about $100,000,000 as compared with $4,762,000,000 invested in American railways. Contrast this with the action taken during the war. Congress oppropriated $3,000,000,000 for shipbuilding direct. In that one move, it expected to offset the discrimination that had been shown in favor of the railroads. But the mistake has been that the money was spent directly by the government for ships. Instead of having a healthy merchant marine today, the country is burdened with the load of state-ownership.

According to the statement of Secretary Hughes at the opening session of the naval armament conference, the importance of merchant ships in war increases in "inverse ratio" to the limitation of battleships. "It would be just like taking the pistols away from three men," a commentator described it. "But each would be at liberty to pick up the first stick he could find. In this case, the stick is the merchant marine," and by far the greatest merchant marine is England's." If the construction of naval vessels is restricted, the British fleet will immediately become more valu-

## Division of Fast Merchant Ships Among Leading Maritime Powers

| | Of 19 knots speed | Of 21 knots speed | Of 23 knots speed | Of 24 knots speed | Of 25 knots speed | Total Fast Ships |
|---|---|---|---|---|---|---|
| Japan | 1 | — | — | — | — | 1 |
| Italy | 2 | 3 | — | — | — | 5 |
| France | 4 | 2 | 2 | — | — | 8 |
| United States | 13 | — | 2 | 1 | — | 16 |
| England | 35 | 25 | 6 | 6 | 1 | 73 |

# Only U. S. Battleship Ever Scrapped Is Now Craneship

*The American navy has never scrapped a battleship so that the salvaging problems arising from the American naval disarmament proposals furnish a new study for navy officers. The artist's drawing above shows how one battleship was converted to useful service. A 220-ton revolving crane built by the Wellman-Seaver-Morgan Co., Cleveland, is mounted on the old battleship* KEARSARGE. *As a crane-ship, the old warrior will proceed from one point to another to handle guns, armor plate and other heavy material. All other battleships, put out of commission, have been used as targets and sunk.*

*Engineers of the navy department now are investigating, with the help of steel experts, the problem of salvaging the materials of those warships which are to be scrapped.*

able, as it has a preponderance in potential auxiliary cruisers, built with this purpose in mind and assisted by subsidies. Here is a serious danger to the United States and one which has been brought clearly before the shipping board and the Washington administration by a member of the American Bureau of Shipping.

On paper, the American merchant marine looms large and powerful, but as is well known extreme difficulty is found in keeping these merchant ships in service in competition with foreign vessels. Any protracted period of enforced idleness would seriously injure the tonnage and render it impotent in an emergency, as a ship depreciates rapidly when not in use. When measured in speed of vessels, as well as when measured in total tonnage owned, the United States will rank second.

Japan's fastest merchant ship today makes but 19 knots, and but one small vessel of this speed now flies the Nippon flag although that country is building several fast vessels. Italy owns two ships which have a speed of 19 knots and in addition owns three other vessels which can make 21 knots. France is better off than either. She has four ships of 19 knots each, two ships of 21 knots each and two ships which can make 23 knots. The United States tops all three but only because a number of the ex-enemy ships fell a prize to this country as a result of the war. The United States owns 13 ships capable of 19 knots, two ships capable of making 23 knots and one ship with a speed of 24 knots.

But these 30 fastest ships belonging to the United States, France, Italy and Japan could be put into one fleet and still England could more than double their strength. In contrast to these 30 fast vessels owned by the other nations, England owns 73 vessels, many of which are even faster than anything owned by any other nation and a great many of which are much larger. England owns 35 ships of 19 knots, 25 ships of 21 knots, six ships of 23 knots, six ships of 24 knots and one ship, the MAURETANIA, of 25 knots.

The American merchant fleet is so badly balanced that it is doubtful whether even its few fast ships would prove of great benefit in an emergency. The total merchant fleet totals some 16,000,000 tons, making it the second merchant fleet in the world, England owning 20,000,000 tons of ships. But of the 16,000,000 tons, approximately 10,000,000 tons are owned by the government. The bulk of this fleet was built during the war or at least planned to meet the war emergency. At that time, as an ally of England and France, which countries already had the passenger vessels, the duty evolved upon the United States of building freight boats. This country built them, but they were built to supplement the fleets owned by the allies. The war thus leaves this country with a tramp fleet, although this nation never has operated a tramp fleet successfully and the navigation laws are such as to prevent successful operation in the future. Here and there in the merchant fleet is a boat capable of being placed in a liner service, but such ships are scarce.

Therefore, unless the merchant fleet problem is also settled, the proposed agreement on the limitation of navies places the United States at a decided disadvantage among the nations. It weakens the position this country has won during the past year, and leaves the way clear for England to control the Atlantic and Japan the Pacific.

## Book Reviews

*Elements of Map Projection with applications to map and chart construction;* by Charles H. Deetz, cartographer, and Oscar S. Adams, geodetic computer; special publication No. 68, U. S. coast and geodetic survey, Washington; 7½ x 11¼ inches; 163 pages.

This volume is a comprehensive treatise on all the more useful projections. It presents them in as simple a form as possible in their general characteristics, mathematical development and actual construction.

The whole field of cartography, with its component parts of history and surveys, map projection, compilation, nomenclature and reproduction is so important to the advancement of scientific geography that the selection of suitable map projections is receiving far more attention than was formerly accorded to it.

Part I of this book covers the subject in general without the employment of any mathematical formulas. In the selection of projections for present-day use in Part II, the authors have limited themselves, with two exceptions, to two classes, projections that are *conformal* and projections that are *equal-area* or equivalent. The exceptions are the polyconic and gnomonic projections—the former covering a field entirely its own in its general employment for field sheets in any part of the world and in maps of narrow longitudinal extent, the latter in its application and use to navigation.

The mercator projection, useful for nautical charts, is presented with detailed and all necessary description, including formulas and tables. The chapter should interest the mariner in a better understanding of the special properties of this projection concerning which there is much unnecessary abuse. This is followed by an approximate method for fixing positions at sea by wireless directional bearings.

On account of the extensive use of mercator tables which have not been printed in sufficiently accurate form for 48 years, the book should meet a long-felt want. Nearly 15,000 nautical charts are prepared on this system of projection with a probable annual total of over 2,000,000. Under the subject "World Maps" the mercator projection is again discussed for its usefulness in a continuous conformal mapping of the world and its impossibilities when extended into the polar regions are explained.

The problems of world mapping are well outlined in this publication and those projections which have first claim to present-day use are well accounted for at the expense of others which are seldom seen and are more or less geometric trifles.

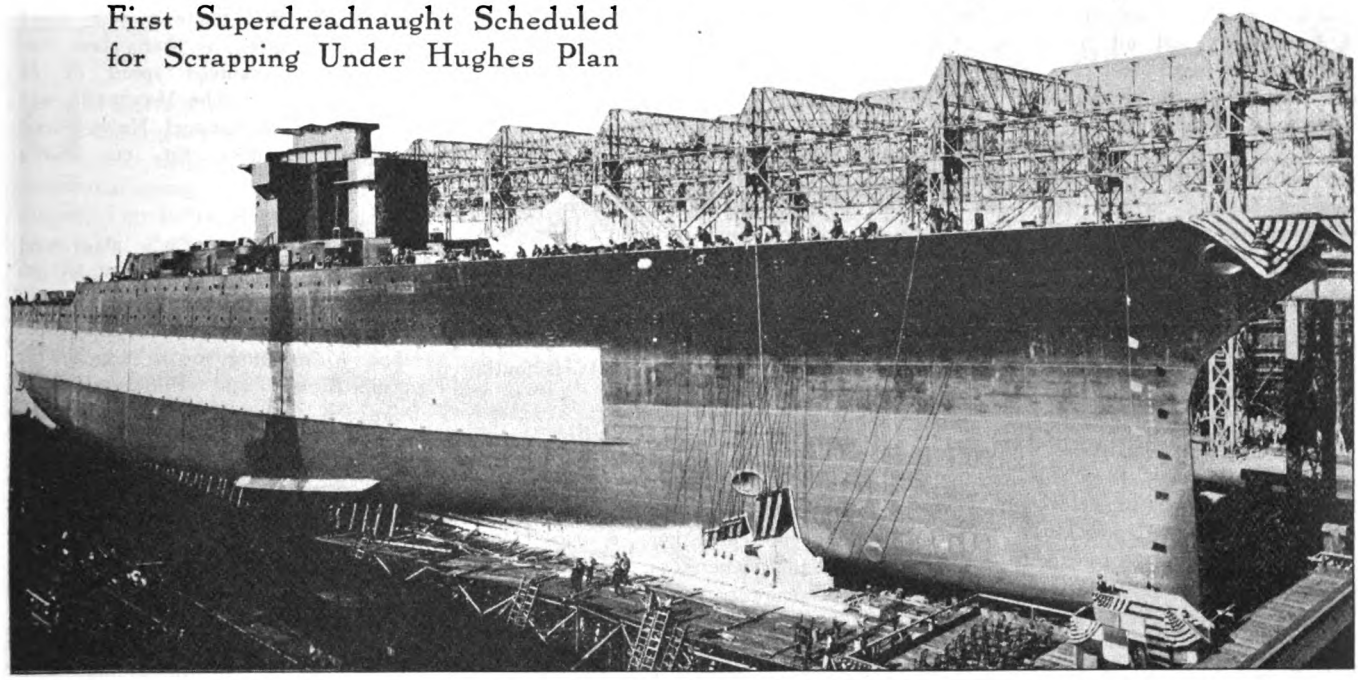
*Protection Our Proper Permanent Policy,* by James T. McCleary; 544 pages, 6½ x 9¼ inches; cloth; published by the National Tariff Institute, Inc., Washington and St. Paul, and for sale by MARINE REVIEW, Cleveland, $3.50 postpaid.

This work has a peculiar interest to the marine executive because of the past success of so many industries in gaining strength behind the tariff wall while shipping has been denied even the privilege of competing on even terms with the foreigner. The author, secretary of the American Iron and Steel institute says that the book has been written in faith.

Mr. McCleary proves himself truly to be a deep student and a zealous advocate of national progress through the tariff. Probably no better equipped author from long experience and favored observation could have undertaken the task of presenting the doctrines of the pure and unadulterated protection of past years in these days of modified faith amid changing world conditions. He has brought to his task the fruits of study and of participation in tariff making which have come to him from a long and illustrious public career. Mr. McCleary served in congress from the second Minnesota district for a period of 14 years and was active in the councils and deliberations of his party. Under President Roosevelt he filled the office of assistant postmaster general. The book lays down the fundamental aspects of the tariff question, analyzes the experience of foreign countries, traces the history and operations of the respective American laws and also the development of the American protective system, winding up with a discussion of scientific tariff revision.

# Launch Warship at Newport News

## First Superdreadnaught Scheduled for Scrapping Under Hughes Plan



The Washington disarmament conference alone will reveal whether the battleship WEST VIRGINIA, shown above ready for launching, will be completed or scrapped

HAMPTON ROADS has witnessed many of the historical events which crowd the records of both the American navy and the American merchant marine. This expanded mouth of the James river has always held front rank in American naval and commercial history. John Smith first discovered this remarkable harbor three centuries ago and each day new discoveries of its commercial possibilities are being made.

An incident which occurred on the morning of Nov. 19 along the shores of the Roads has, therefore, a historical surrounding which was peculiarly appropriate. This incident was the launching of the battleship WEST VIRGINIA.

This huge naval vessel slipped into the waters of Hampton Roads only a few days after the first announcement of the American program for world naval disarmament. The newness of the proposal, the universal conviction that the disarmament program would carry—bringing with it the abandonment of construction of the WEST VIRGINIA type—all combined to give the launching a surrounding new to such scenes.

History played one of its rare pranks in bringing to Hampton Roads this launching of the last battleship which American yards may construct for many years. In the same waterway, the old battleship TEXAS had been launched in the late '80's. She was the first steel battleship built in this country. In the intervening 30 years, American shipyards have developed the skill and ability to rank the American navy second among the world fleets and first, if potential shipyard deliveries are taken as the yardstick. Hampton Roads thus will carry the distinction of having received, on their maiden plunges, the first and, at least for some years, last American battleships.

### New Ship May Be Sunk

The dreadnaught WEST VIRGINIA, according to the Hughes announcement, is to be scrapped. Completed, she would cost $40,000,000, of which $30,000,000 had already been spent when the ship was launched. She is a sister ship of the MARYLAND, just commissioned, of a class which ranks among the world's greatest fighting units. Ships of greater tonnage and gunpower are under construction but under the disarmament plan, will never reach the launching stage. These are the dreadnaughts SOUTH DAKOTA, INDIANA, MONTANA, NORTH CAROLINA, IOWA, and MASSACHUSETTS. Four of these are being built in navy yards while the IOWA is under construction at Newport News and the MASSACHUSETTS at Fore River, Mass.

The WEST VIRGINIA is being built at the plant of the Newport News Shipbuilding & Dry Dock Co. She was authorized in 1916, construction being held up by destroyer work during the war. The keel was actually laid in April, 1920, so that only 19 months were consumed in bringing her to the launching stage.

The Newport News Shipbuilding & Dry Dock Co. has made an excellent record in handling naval work. The yard has been a specialist in this type of construction, the WEST VIRGINIA being the thirteenth battleship constructed at Newport News. The first big seafighter built there was the KEARSARGE in 1896, which has only about half the length of the WEST VIRGINIA and about one-third the displacement. The yard has also built the battleships KENTUCKY, ILLINOIS, MISSOURI, VIRGINIA, LOUISIANA, MINNESOTA, DELAWARE, TEXAS, PENNSYLVANIA, MISSISSIPPI and MARYLAND.

The launching was made without any unusual incident. President Homer L. Ferguson and other officials of the shipyard company had prepared for and handled easily a large crowd gathered to witness the launching. The christening ceremony was performed by Miss Alice Mann, Bramwell, W. Va. Governor Morgan and prominent officials and citizens of West Virginia were present. Admiral Andrews, commandant of the Norfolk navy yard, and Rear Admiral Latimer, judge advocate general of the navy, were the representatives of the navy department. After the launching, the guests were entertained by the shipbuilding company at a luncheon. Addresses were made by Mr. Ferguson, Governor Morgan, Admiral Andrews, Congressman Goodykoontz and official representatives of the army.

As launched, the WEST VIRGINIA measures 624 feet from stem to stern and is 97 feet wide. Although her hull is practically complete and her main deck laid, she lacks her equipment, much of her armor and all her guns. In addition to eight 16-inch rifles, she would carry if completed, a secondary battery of fourteen 5-inch rifles, four 3-inch anti-aircraft guns and two 21-inch submerged torpedo tubes. She is designed for an electric drive of 29,000 horsepower.

Somewhere among government stores are eight 16-inch rifles made especially to fit her four gun pits. She would be able when completed to steam at almost a 23 knot speed. She is built so as to be almost invulnerable to torpedo attack. Her hull is heavily armored. No device that American genius or war experience has combined to produce has been omitted from the ship's fighting equipment.

Facts and figures of the battleship WEST VIRGINIA are:

Dimensions—624 feet in length; 97 feet 5¾ inches in waterline width; 30 feet 6 inches mean draft.

Displacement—32,600 tons normal and 33,490 tons loaded, or 101.1 tons per inch immersion.

Gun Equipment—Eight 16-inch turret guns and fourteen 5-inch secondary guns; four 3-inch anti-aircraft guns; two 21-inch submerged torpedo tubes; four 6-pounder saluting guns and usual aircraft and submarine protection.

Propellers—four.

Engines—General Electric turbine electric drive type, with generators providing 29,000 horsepower.

Boilers—Eight Babcock & Wilcox oil burners.

Ship's Complement—1,488 enlisted men.

The first WEST VIRGINIA was authorized by congress on March 3, 1899. She was an armored cruiser, 502 feet long and 69 feet beam, displacement 13,000 tons and carrying 40 guns. She was built at Newport News and launched April 18, 1903. On Nov. 9, 1916, her name was changed to HUNTINGTON for the city in West Virginia. She is now out of commission at the Portsmouth, N. H. yard.

The U. S. S. WEST VIRGINIA is the seventh all electrical battleship to be launched for the navy department. Her electrical equipment is of the General Electric type consisting of two 11,000 kilowatt turbogenerators, operating four 7000 horsepower propeller motors designed to drive the ship at 21 knots an hour. In addition to the main propulsion unit, the WEST VIRGINIA is equipped with six auxiliary turbogenerators supplying the vessel with electric power for operating boat cranes, anchor windlasses, steering gear, ammunition hoists, gun turrets, signalling apparatus, telephone service, light and heat and motor driven apparatus in the laundry, carpenter shop, kitchen, etc.

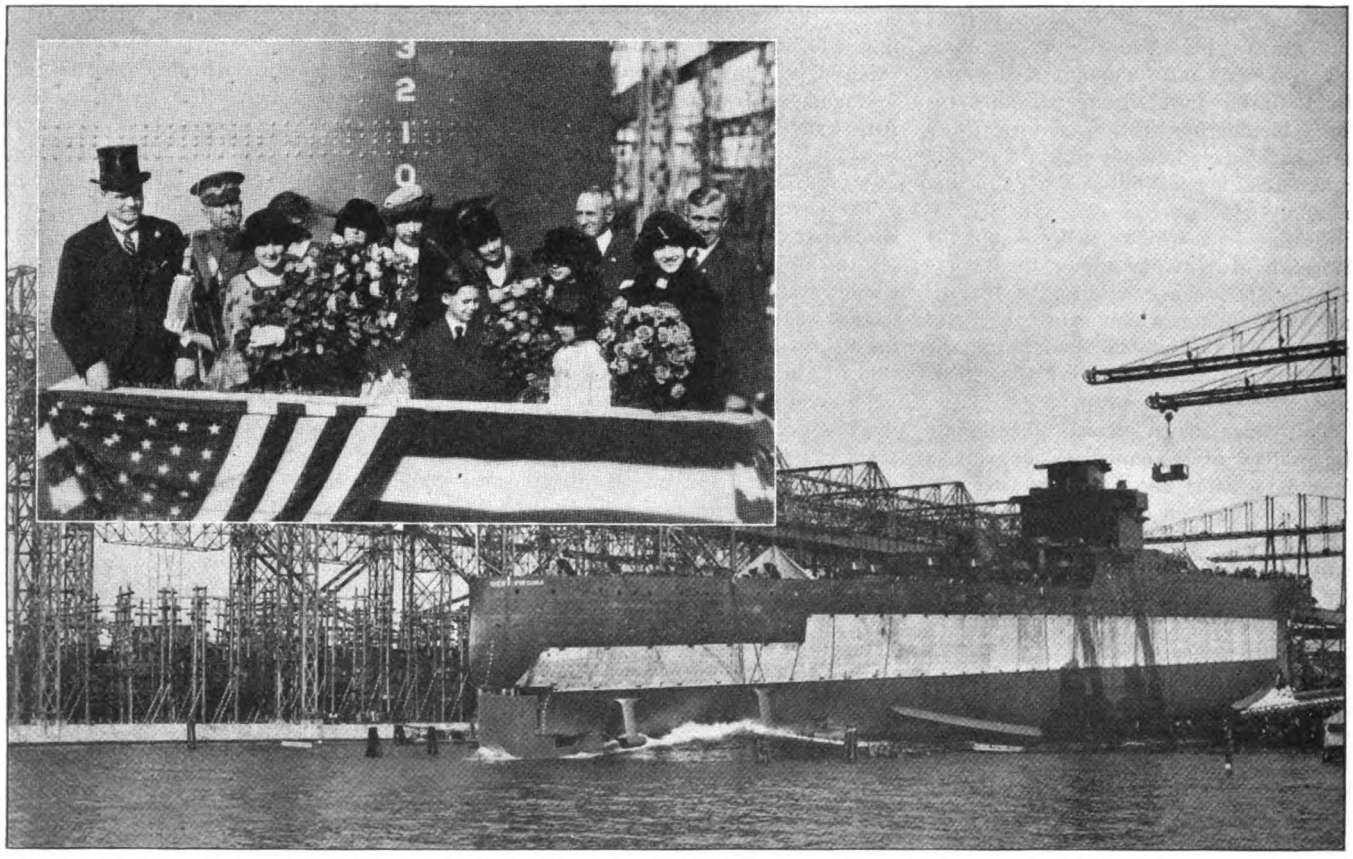
The WEST VIRGINIA'S sister ship, the U. S. S. MARYLAND, also electrically propelled, has just made a new speed record for vessels of her class exceeding her guaranteed speed of 21 knots by 1.5 knots. The MARYLAND was launched by the Newport News Shipbuilding & Drydock Co. on March 20, 1920.

---

The Mutual Truck Co.'s plant and equipment at Sullivan, Ind., will be offered at public sale by the receiver, Dec. 22. The sale will include 12 acres of land with siding to the Chicago & Eastern Illinois and Illinois Central railroads; a large modern brick building with steel truss roof; heating plant, machine tools, drawings, blueprints and a miscellaneous stock of materials and parts for building a 2½ ton motor truck. The First National Bank, Sullivan, Ind., is the receiver and E. D. Maple the trust officer in charge.

---

Under operation of the United American Lines, the steamer CLARKSBURG is soon to become the GEORGIAN, authority having been granted to change the name, as she will take the place of the steamer of that name which was sunk during the world war.



BIG SUPERDREADNAUGHT SLIDING INTO THE WATERS OF HAMPTON ROADS, WHERE THE FIRST MODERN AMERICAN BATTLESHIP ALSO WAS LAUNCHED. GROUP ON LAUNCHING STAND INCLUDES GOVERNOR MORGAN OF WEST VIRGINIA AT EXTREME LEFT AND HOMER L. FERGUSON, PRESIDENT, NEWPORT NEWS SHIPYARDS, AT EXTREME RIGHT

# How Conferences Control Rates

## Being a Survey of Existing Rate Conferences and Efforts To Exert American Influences Through the Shipping Board

OWNERSHIP of ships by the Emergency Fleet corporation and their disposal by the proper governmental agency is the problem of immediate importance in the shipping business. But such a task was a matter of minor concern in the general scheme of regulation of shipping which was designed in the basic law of congress enacted in 1916. Should the Emergency Fleet corporation be liquidated tomorrow and the government divest itself of all financial interest in merchant shipping, the United States shipping board would remain and the merchant marine act of 1916 would not be affected in the least.

### Intended To Regulate

The original intention was that the shipping board should regulate merchant shipping somewhat after the fashion that the interstate commerce commission regulates the railroads. As the interstate commerce commission lacks the power to own or operate railroads, so is the shipping board not allowed to own or operate ships. It was because of that prohibition of law that the Emergency Fleet corporation was created. Because commissioners of the shipping board became officers of the Emergency Fleet corporation, the confusion has arisen. In the field of regulation the power of the board will continue no matter what happens to the Emergency Fleet corporation. And one of the important provisions of the authority granted the shipping board is found in section 15 of the law. This provides:

"That every common carrier by water, or other person subject to this act, shall file immediately with the board a true copy, or, if oral, a true and complete memorandum, of every agreement with another such carrier or other person subject to this act, or modification or cancellation thereof, to which it may be a party or conform in whole or in part, fixing or regulating transportation rates or fares; giving or receiving special rates, accommodations, or other special privileges or advantages; controlling, regulating, preventing, or destroying competition; pooling or apportioning earnings, losses, or traffic; alloting ports or restricting or otherwise regulating the number and character of sailings between ports; limiting or regulating in any way the volume or character of freight or passenger traffic to be carried; or in any manner providing for an exclusive, preferential, or co-operative working arrangement. The term 'agreement' in this section includes understandings, conferences, and other arrangements."

Conference agreements were long obnoxious to Washington and previous administrations have sought to destroy them. It was while this sentiment was prevailing that the department of justice brought a suit under the federal antitrust laws against the Hamburg-American and other steamship lines alleging them to have entered into an illegal conspiracy to control the traffic to the United States. This case came up in due course of events and was subsequently appealed to the Supreme Court of the United States. By the time it reached that tribunal, Germany had thrown the world into a war, and the court decided that as the war had altered all agreements on the high seas and as the old conference agreement no longer existed there was no case to decide.

It required considerable argument to persuade congress that a conference agreement is not necessarily discriminatory against the international traffic of a country, but that it actually stabilizes business and makes possible more uniform service on the part of steamship lines. Therefore, when congress enacted the marine act of 1916 it made a provision for recognizing reasonable conference agreements. The new law was drafted so that all conference agreements must be submitted to the shipping board for approval and unless so approved could not be applied. In case such agreements are approved by the shipping board, the steamship companies which are parties to that agreement, the law provides, are not committing an infraction of the antitrust law. But in case an agreement is not approved, not only is this immunity not granted, but in addition a steamship company which applies an unapproved agreement may be fined $1000 a day each day it is a party to such an agreement.

### Government Reserves Policy

To persuade the government that conference agreements were ethical in principle was a great step in advance. Yet today the government is actually a guarantor of conference agreements through its operators, showing a marked reversal of federal opinion from a conception of a theory to the practice of a fact.

When the French ship lines in 1920 broke away from the transatlantic conference and took the Belgian line with it, no one worked harder for the restoration of the conference than the shipping board itself. Everthing possible was done to bring about harmony and a working agreement between the competing interests.

The French line precipitated the fight in the transatlantic business during August, 1920. The shipping board was forced to declare all the French-Atlantic rates open and a rate war to the finish was waged. Ultimately the French and the Belgian companies agreed to fall in line and about April, 1921, they rejoined the conferences. The French boats fought the shipping board directly because, they contended, the United States was overtonnaging the French-Atlantic trade.

### British Become Aggressive

Throughout the fight with the French, the British lines remained neutral and continued members of the conference, but the French rate war was hardly over before signs of aggressive competition on the part of the British merchant marine became evident. This was first discernible when congress enacted a temporary immigration restriction law and thereby made the steerage business unprofitable. With the German lines out of existence, the British passenger boats had been planning on reaping rich harvests from bringing immigrants to American shores. When that hope was dimmed, the British ships naturally saw that it was incumbent upon them to give the American marine a little lesson in competition.

The British methods of competition have been extremely severe and disastrous. So far they have been instrumental in breaking up many of the established conferences. First was the Egyptian cotton business, for which the British lines signed up a yearly contract before the shipping board had an opportunity to enter any agreement. A fight over this waged for months and it was necessary for one of the vice presidents of the Emergency Fleet corporation to go to London before the British lines could be forced to agree to share the Egytian cotton business with American lines.

It has also been a practice of the steamship lines to contract for traffic not more than six months in advance. Two of the largest British lines wished to capture the contract of the Standard Oil Co., to transport case oil to the Orient and they consequently broke the conference agreement and took case oil at a cut rate. In other directions competition became severe. Ridiculously low

rates were quoted to the Levant. The result was that during the fall of 1921 it was necessary to declare the Mediterranean conference off and all rates open. A somewhat similar situation has been noticeable in the River Plate conference.

The fight with the British merchant marine now is on and conferences mean but little. Nevertheless, the skeletons remain and some day they will again have their old significance.

Section 15 of the marine act of 1916 further provides:

"The board may by order disapprove, cancel, or modify any attempt, or any modification or cancellation thereof, whether or not previously approved by it, that it finds to be unjustly discriminatory or unfair as between carriers, shippers, exporters, importers, or ports, or between exporters from the United States and their foreign competitors, or to operate to the detriment of the commerce of the United States, or to be in violation of this act, and shall approve all other agreements, modifications, or cancellations.

"Agreements existing at the time of the organization of the board shall be lawful until disapproved by the board. It shall be unlawful to carry out any agreement or any portion thereof disapproved by the board.

"All agreements, modifications, or cancellations made after the organization of the board shall be lawful only when and as long as approved by the board, and before approval or after disapproval it shall be unlawful to carry out in whole or in part, directly or indirectly, any such agreement, modification, or cancellation."

### Board Now Active

The United States was involved in a war shortly after this law was enacted and by the time the shipping board was created there were more important matters pressing it for attention. Unusual shipping conditions had upset all conference agreements and, therefore, for a time the board was without necessity to apply this particular provision of the law. But since then, aside from the fact that the Emergency Fleet corporation has a large fleet of ships to put into trade and enter into conference agreements with competitive fleets, the board has set up its agency to approve all rates or other conference agreements.

Steamship headquarters have long been centralized in New York. From offices there, conference agreements have been made on rates for practically all the outports. The steamship conference has an established office at 59 Pearl street, New York, which is presided over by S. E. Morse, secretary of the conference. But to make practical the operation of the shipping law of 1916 it was decided to have a shipping board representative sit in on these conferences. This obviates the necessity of having a full and complete report sent to Washington for approval before it can become operative. The shipping board's representative is E. E. Embree, with offices at 45 Broadway. Messrs. Morse and Embree act as the joint secretaries of the conferences, one as an employe of the private lines and the other as an employe of the shipping board.

### Has Several Divisions

This is called the North Atlantic conference, and it agrees upon all the rates and traffic matters on transportation service between ports on the Atlantic coast from as far north as Canada and as far south as Norfolk to any port in the world. In addition there is the South Atlantic conference, the shipping board representative for which is F. P. Latiner, with offices in room 1306, Savannah Bank & Trust building, Savannah, Ga. This conference controls rates and traffic conditions from all ports from Wilmington, N. C., to Jacksonville, Fla. Traffic out of the gulf ports are regulated by the Gulf conference, the shipping board representative on which is H. J. Debereux, with offices in room 702 Carondelet building, New Orleans. Services out of the Pacific ports are controlled by two steamship conferences. The headquarters for one is in Seattle and for the other in San Francisco.

Probably the simplest organization of all these conferences is the South Atlantic, which has just one conference to control rates and traffic moving to any and all the ports of the world. All the shipping companies in these ports meet together and decide on any question of rates that may come up.

The most complete organization is found in the North Atlantic conference. This conference does not attempt to embrace all territories in one agreement, but divides itself naturally into geographical divisions. Only those lines actually engaged in these particular runs are called into a conference. These particular divisions are:

1. United Kingdom Conference.
2. Baltic and Scandinavian Conference.
3. Joint Continental Conference, which includes the French Atlantic ports, Antwerp, Rotterdam, and Hamburg-Bremen range. This supersedes the old arrangement when there were three separate conference agreements.
4. Spanish and Portuguese Conference.
5. French Mediterranean and North Africa, extending as far east as Bengazi, Tripoli.
6. West Coast Italy Conference.
7. Adriatic, Black Sea and Levant Conference, which takes in the easterly ports of the African north coast including Egypt.
8. Indian Conference.
9. Far East Conference, which includes ports of Japan and China.
10. Dutch East Indies Conference.
11. East Coast of South America Conference.
12. West Coast of South America Conference.
13. Pacific Coast Westbound Conference, via Panama Canal.
14. West Indies Conference.

The steamship lines operating out of the gulf ports which meet in conference at New Orleans are likewise divided into various sections pending upon the ports of destination. The gulf conferences have the following subdivisions:

1. Mediterranean Conference.
2. Pacific Coast Westbound Conference.
3. Haitian, Dominican and Lesser Antilles Conference.
4. West Coast South America Conference.
5. Far East Conference, which includes the Dutch East Indies.
6. East Coast South America Conference.
7. United Kingdom Conference.
8. French Atlantic-Hamburg Range Conference.
9. Baltic-Scandinavian Conference.
10. Greek-Adriatic Conference.

### Look to Enforcement

It not only is the province of these conferences to fix all the outbound rates on commodities moving from the United States to foreign ports, but also their duty to see that those rates are adhered to. It frequently happens that a nonmember or a weak member of the conference shades the quoted rates in order to obtain a cargo in a hurry. The officers of the conference must investigate these matters and take proper steps to see that the tariffs agreed upon are adhered to.

Section 16 of the law of 1916 especially provides that it is unlawful for any carrier "to make or give any undue or unreasonable preference or advantage to any particular person, locality, or description of traffic in any respect whatsoever, or to subject any particular person, locality, or description of traffic to any undue or unreasonable prejudice or disadvantage in any respect whatsoever."

Under this provision of law, the shipping board through its agency has authority to determine when steamship companies are discriminating against flour, for instance, in preference to wheat. That actually was a case in point that was raised last year and the shipping board ruled that the rates on flour should not be more than 5 cents

per 100 pounds higher than the rates on wheat. At the time of the issuance of that order, it was understood that the effect would be to reduce the rates on flour and thereby benefit American millers. It was preferred to ship flour and to enable the millers thus to obtain more business. Steamship men objected to this ruling of the shipping board and with good reason, although it was early shown that the board was acting within its technical rights in making the ruling. In some instances, the new rates have promoted the exportation of flour, but whether that encouragement to flour exports was worth its cost to the shipping business is a question not yet answered.

If an unscrupulous shipping board so desired, it might use its powers to regulate ocean rates to the great detriment of the steamship companies. But the board has preferred to co-operate with them, so that it gradually is gaining the confidence of steamship operators and they foresee some measure of regularity brought out by this kind of regulation. For instance, during the war the government tried its best to increase the traffic through the southern ports. Under federal control, the railroads revamped their rates in order to encourage the flow of traffic from interior points to the southern ports. Then the operators out of the gulf ports, who were largely operators put into business by having government ships allocated them, tried to have the differential between the north Atlantic rates and the gulf rates reduced.

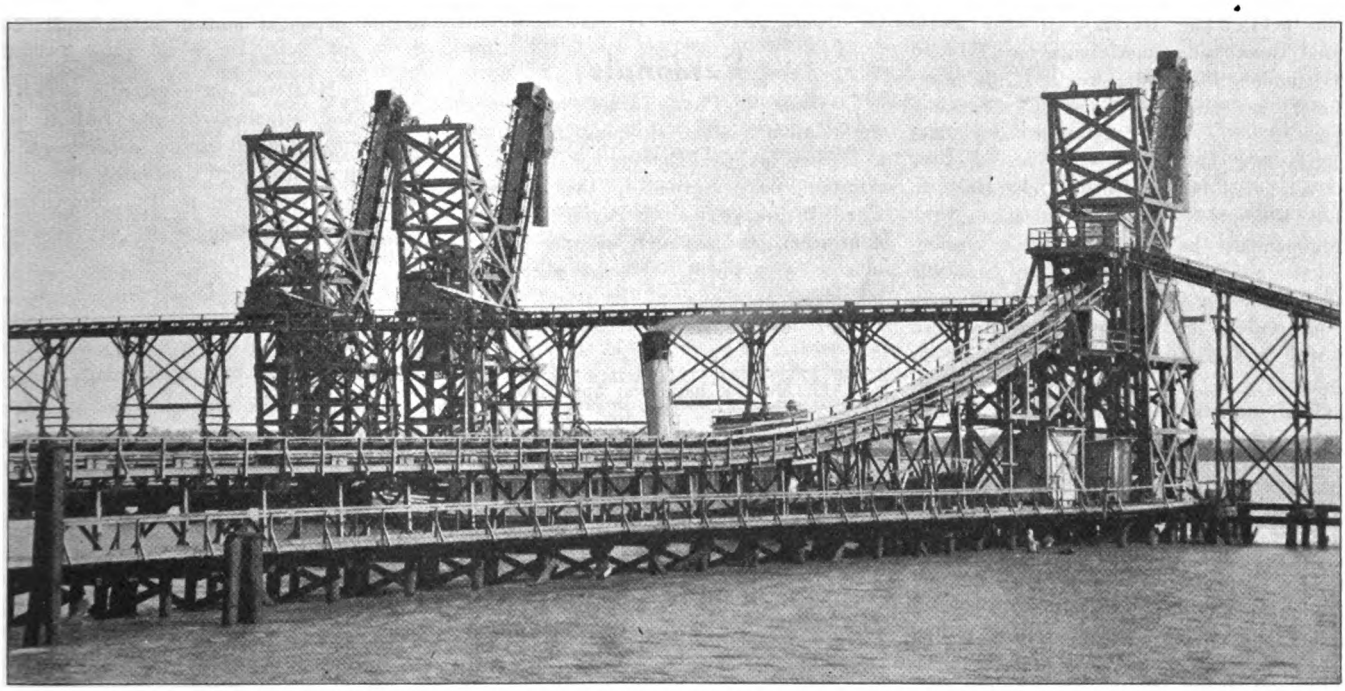
But section 16 of the law prohibits discriminations in favor of any locality. Therefore, the protests of the gulf operators have had but little effect. In transporting freight across the Atlantic, a ship does not consume nearly so much coal and time in transporting it to New York, for instance, as it would were the freight carried on to New Orleans. Therefore, no reason except to benefit artificially the southern ports, exists to make the New York rates as high or even nearly as high as the gulf rates. The North Atlantic conference now is proceeding to its work independently and has no intention of letting the tail wag the dog. The interests involved in the North Atlantic conference are working hard for all the business they can command.

On the Pacific coast, a threat of trouble also is ever present because the conference represents merely a gentlemen's agreement and may be broken at any minute. The British influence has been quiescent for some time past. The Blue Funnel line refuses to join in the conferences, although that line has followed the conference rates. The Japanese have been friendly to date although one or two Japanese tramps have been chartered on a low bareboat basis for the lumber trade.

Steamship conferences on the Pacific cover only freight agreements. While various passenger lines operating from north Pacific ports maintain tariffs that are practically identical, there is no conference. However, there is an unofficial understanding among competing lines without the formality of conference agreements.

Freight conferences affecting north Pacific lines cover services to the Orient, to Australia, to the West Coast of South America and the Atlantic ports. These organizations are not so complicated as are those in other ports. Pacific conferences are not divided into major and minor groups but cover the entire field directly.

There are several lines operating regularly from the north Pacific to Great Britain and northern Europe ports but these have no conference. There is, however, an informal agreement by which rates are kept at a certain level and destructive competition is thus avoided.



NEW COAL TIPPLE AT NEW ORLEANS HAS MAXIMUM LOADING CAPACITY OF 1000 TONS AN HOUR

The most important Pacific conference is that affecting the Far Eastern services. For many years, there was only one organization embracing a majority of the operators running to Japan, China and Manila from British Columbia, Puget sound, Columbia river and Californian ports. During the past year, differences have arisen which resulted in separate organizations being formed. The principal issue was the fact that different conditions applied at various ports. For instance, northern Pacific ports objected to California dictating the rate to be charged for lumber and other products of Oregon and Washington. Contrariwise, California protested against northern operators making rates on cargoes originating in California. The result was a break which left California operators in one body and the northern lines in another.

It was not long before Columbia river operators decided their interests demanded a separate conference covering their particular territory. Lacking the co-

operation of Oregon lines, Puget sound and British Columbia operators decided to disband and consequently the Washton-British Columbia organization went out of existence on Aug. 15, 1921. It is believed that this action is only temporary. Oregon, Washington and British Columbia have so much in common that it is logical to expect a renewed conference.

Charles E. Daymude, L. C. Smith building, Seattle, has for years been secretary of the Pacific westbound conference which temporarily retired from the field. The secretary of the Portland westbound conference is Edward Ostrander, Portland, Oreg. M. J. Mayfield, San Francisco, holds the same position for the California westbound conference.

While all the transpacific operators do not belong to these organizations, the nonmembers as a rule observe conference rates and there is an amicable understanding among all. Even without a conference, the operators at northern ports are asking conference rates or better.

The transpacific conferences assume jurisdiction only over cargo originating on the Pacific coast. On freight coming overland, rates are fixed by the New York conference on which the Pacific coast has representation. Transpacific rates are usually adjusted so that a parity exists between the all-water route from Atlantic ports to the Orient via the Panama canal and the combined rail and water haul via Pacific coast terminals.

### All Maintain Rates

J. H. Todd, 369 Pine street, San Francisco, is secretary of the eastbound intercoastal conference including a majority of the lines running between the American Atlantic and Pacific ports via the Panama canal. In this trade, also it is true that all the companies are not members of the organization but conference rates are being maintained by all.

In addition to these conferences, there are two others of which Mr. Todd is also secretary. These include the West Coast route and the Australian route. In both these trades, shipping board tonnage is operating and the shipping board exercises a degree of control over these conferences and participates in the making of rates. The Australian conference also includes the Canadian government merchant marine now operating regularly to Australian ports. This conference covers lines which have headquarters at ports along the entire west coast from California to British Columbia.

As from the north Pacific ports, so from San Francisco there are no conference agreements on passenger rates. San Francisco, however, has five freight conferences in which Mr. Todd is the representative of the shipping board. These are as follows:

1. Transpacific (California-Pacific westbound);
2. Pacific Coast-North Atlantic, Eastbound;
3. Pacific Coast-Gulf Eastbound (intercoastal);
4. Pacific Coast-Australian Tariff Bureau;
5. Pacific Coast-West and East Coasts of South America.

## Personals

CHARLES R. PAGE, former member of the United States shipping board and a trustee of the Emergency Fleet corporation, has returned to the Fireman's Fund Insurance Co., a Pacific coast organization, as manager of the Atlantic marine department. He has been vice president and general manager of the United States Salvage association.

* * *

F. C. DEVINE has been appointed resident agent at Seattle for the Atlantic, Gulf & Pacific line, succeeding A. B. Natland, resigned. Mr. Devine has long been associated with various companies operating out of Puget sound.

* * *

CHARLES E. JENNY, district passenger agent of the Canadian National railways and the Canadian Government Merchant Marine coast service, has been appointed general agent for the Canadian railways at New York. He was formerly passenger agent for the water service of the Grand Trunk and has a wide acquaintance along the north Pacific coast.

* * *

GEORGE F. NICHOLSON, chief engineer of the port of Seattle, has been granted a leave of absence for six months. Mr. Nicholson has received an attractive offer to prepare comprehensive plans for harbor development at Cork, Ireland, and he intends to spend several months abroad on this work.

* * *

A. J. MICKLEY, for several years assistant general freight agent for the Pacific Steamship Co., has been appointed assistant manager of the Puget sound branch of the Northwest Shipping Co., agent for the Congress line.

* * *

S. M. HAUPTMAN of Charles R. McCormick & Co., San Francisco, has been named national councillor representing the Shipowners' association of the Pacific coast in the United States chamber of commerce.

* * *

IRVING W. REED, formerly superintendent of the East Coast Ship Co., Boothbay Harbor, Me., and Fred M. Cook, naval architect and draftsman with the Bath Iron Works, Bath, Me., have organized the Reed-Cook Construction Co., Boothbay Harbor, and have taken over the East Coast company's plant to build and repair ships.

* * *

E. J. GRIFFITH has been appointed manager of the New York offices recently opened by Thorndyke-Trenholme, Inc., Seattle. Mr. Griffith has been with the Pacific Steamship Co. for several years, serving as publicity manager, assistant to the president and in other capacities.

* * *

F. C. HAMMER, until recently assistant supervisor attached to the Boston office of the United States department of agriculture, has been appointed grain inspector and assistant to B. J. BOLAN under whom all grain is to be inspected at the port of Portland, Me.

* * *

A. B. NATLAND, manager of the Seattle branch of the Atlantic, Gulf & Pacific Steamship Co., has resigned.

* * *

JOHN A. ROONEY has joined the staff of A. J. Morris, 44 Whitehall street, New York, freight broker. Until recently he was with the New York & Argentina Steamship Co. and prior to that had been with Callaghan, Atkinson & Co. for four years. He will have charge of the chartering department for the Morris organization.

## Obituaries

Commodore Ellsworth P. Bertholf, vice president of the American Bureau of Shipping, died Nov. 11 in his 56th year. He served the United States in its revenue cutter and coast guard service from early manhood. He never failed a call to duty, no matter what the danger, and always acted in a notably distinguished and at times heroic manner, as evidenced in the especial award to him by Congress of its gold medal of honor. He finally reached the highest command in the Coast Guard and retained to the last his vital interest in the cause of that service. Later he sought his retirement and went to the bureau on July 1, 1919.

Holly Marshall Bean, builder of 76 sailing vessels, died recently at his home in Camden, Me., at the age of 87 years. Mr. Bean was a director of the Coastwise Transportation Co. and for some years was president of the Camden Yacht Building & Marine railway, Camden, Me., which he founded. One of the last vessels which he built was the 6-mast schooner, GEORGE WELLS, at the time one of the largest sailing vessels afloat.

# Shipowners Meet After 7 Years

## International Conference in London Discusses Bills of Lading, Contracts, Safety, Etc.—Americans Participate

BY H. COLE ESTEP
*European Manager, Marine Review*

REPRESENTATIVES of steamship owners of twelve nations assembled in London, Nov. 23 to 25, for the first international shipping conference since 1914. During the 3-day session, action was taken on a number of important questions, and new policies were laid down in the shaping of which the American representatives took a prominent part in harmony with the renewed importance of the United States as a maritime power. Next to Great Britain, the American delegates represented the largest tonnage at the conference. The activity of Japan was, however, noteworthy, as was the evidence of the growth of the merchant shipping of Italy and Scandinavia.

The nations represented at the conference included the United States, the British Empire, France, Italy, Spain, Japan, Holland, Norway, Sweden, Denmark, Belgium and Germany. The German representatives subscribed to the resolutions but took little active part in the deliberations. It was expressed informally that at future conferences it probably will be necessary to admit other former enemy countries.

Among the American representatives were J. Parker Kirlin, general counsel, American Steamship Owners association, New York; Joseph E. Sheedy, European manager, United States shipping board, London; W. F. Gibbs and A. W. Bibby.

### Hague Rules Approved

Perhaps the most important action taken by the conference was to approve the 1921 Hague rules regarding bills of lading and contracts between shippers and vessel owners which were drawn up last summer by the International Law association. It was agreed the new rules voluntarily would be applied by the interests represented at the conference thus tending to bring about uniformity among an important class of international contracts. The Hague rules were discussed in the survey of British shipping by Cuthbert Maughan in the November issue of MARINE REVIEW.

A committee was appointed to frame international rules regarding the storage and carrying of deckloads and another committee was named to draw up international load line regulations. Other committees were named to revise the international regulations proposed in 1914, but never ratified, regarding bulkheads in passenger vessels and to report on life saving appliances and the use of wireless telegraphy. A resolution dealing with the safety problems also was passed recommending the use of automatic wireless alarm signals.

The London meeting was hampered to some extent in reaching definite results by the long interval since the previous conference as well as by the great changes which have taken place during the last few years. This accounts for the fact that so many questions were referred to committees for investigation with instructions to report at a subsequent meeting which it is expected will be held next year.

The conference emphasized the essentially international character of the shipping business. It was pointed out that the leading maritime nations should cooperate with each other instead of trying to follow policies of discrimination. Discrimination in shipping, it was said, frequently defeats itself because of the ease with which competing nations can retaliate. Shipping more than any other business depends on international good will. Every steamship company trading across the seas has vital interests in two or more countries.

The tendency of governments to interfere in the shipping business was deprecated and strong pleas were made for permitting the trade of the world to develop under unfettered economic conditions. This point was particularly emphasized by Sir Owen Philipps, president of the Chamber of Shipping of the United Kingdom, London, under whose auspices the conference was held. Discussing surplus shipping Sir Owen in his opening address declared that if the civilized governments of the world would do away with even half of the artificial restrictions to trade and commerce there is no doubt there would soon be need for a greater number of steamers than now exist. At no time in the history of the world, he went on, had it been more important to be guided in providing the sea-carrying services of the world, not only by considerations of safety and efficiency but also considerations of economy.

A debate on the Hague rule was opened at the session, Wednesday, Nov. 23, by Sir Norman Hill, who pointed out that the rules are based on the theory that freedom of contract lies at the root of all successful trading and commerce.

"I am satisfied," he continued, "that these rules are a substantial improvement on the Harter and Dominions acts, and that they are an improvement on any act of parliament that would have been prepared to carry into effect the report of the Imperial shipping committee. I am satisfied on these points not merely in the interests of the shipowners themselves but in the interests of international commerce as a whole."

After a speech by J. Parker Kirlin, one of the American representatives, a resolution favoring the Hague rules was adopted at the second session, Thursday, Nov. 24.

### Passenger Ship Bulkheads

The ill fated regulations for the subdivision of passenger vessels by means of bulkheads, adopted at the 1914 conference, were dealt with in a speech by Sir Kenneth Anderson, past president of the Chamber of Shipping. It was intimated that these rules reflected some of the hysteria which followed the TITANIC disaster.

"If maritime traffic of passengers as well as cargo is to be extensive," Sir Kenneth said, "it must be both cheap and immune from restraints. These conditions obviously cannot be fulfilled unless regulations dealing with shipping considerations are internationally uniform. It is obviously impossible for shipowners to try to comply with conflicting regulations in different parts of the world. On the contrary the shipowner must be confident that if his vessel has complied with the regulations of his own national authorities it may take part in world trade without let or hindrance."

With regard to the 1914 bulkhead regulations, Sir Kenneth said, that after a lapse of seven years none of the nations signing the 1914 convention had ratified it or given effect to its terms. Since the present situation is admittedly chaotic and the regulations incomplete and unsatisfactory, he moved a committee be appointed to consider a report in due course on the manner in which the 1914

bulkhead convention should be modified.

The resolution was seconded by Dan Brostrom, representing Sweden, and supported by Messrs. Gibbs and Bibby, representing the United States.

Mr. Gibbs said that so far as the American Steamship Owners association is concerned they will support most heartily a resolution which aims at the investigation of the proper method of subdividing passenger steamers. He said that criticism should be directed not so much to the large liners as to ships on the border line between freight and passenger service where only a few passengers are carried. At present, requirements in respect of the safety of the ships for those few passengers are as rigid as if a large number of people were to be carried. Without relaxing essential safety regulations he pointed out that the bulkhead convention might be revised with reference to passenger vessels in this class.

### Automatic Alarm Wanted

A large share of the time at the final session on Friday, Nov. 25, was taken up with the discussion of life saving appliances and wireless telegraphy. Sir Alan Anderson pointed out that in 19 years up to 1911, 9,500,000 passengers were carried across the Atlantic and only 85 lost their lives. The first thing necessary for safety at sea is good ships and good navigators. The second line of defense is to get help quickly when disaster occurs. In this connection automatic wireless alarms would be most valuable. He said such mechanism is inexpensive and that there is no practical difficulty in looking after such wireless installation without the necessity for employing a trained operator who on small cargo ships might have practically nothing to do 99 per cent of the time.

A resolution was passed appreciating the service rendered to international commerce by the efforts of the Comite Maritime Internationale and the International Law association.

A dinner was given in honor of the foreign delegates by the Chamber of Shipping, at the Hotel Victoria, Nov. 23. Sir Owen Philipps presided and addresses were made by Dirk Hudwig, Neederlandsche Reedersvereeniging, representing Holland, Sir Henry Duke, representing Great Britain, and Dan Brostrom, president of the Sveriges Redareforening, representing Norway.

The resolutions in full as adopted by the International Shipping conference, are as follows:

### Marine Rules

That this conference, representative of the shipping industry in every part of the world, which has had before it the Hague rules, 1921, recently adopted by the International Law association for submission to the various interests concerned in bills of lading, is of opinion that the interests of trade and commerce are best served by full freedom of contract, unfettered by state control; but that in view of the almost unanimous desire manifested by merchants, bankers, and underwriters for the adoption of the Hague rules, this conference is prepared to recommend them for voluntary international application, and if and so far as may be necessary for adoption by international conference between the maritime countries, Italy and Japan reserving the right to raise questions on the rule which prohibits the shipowner fixing a limit of liability below £100 per package.

### Deck Loads

That in the opinion of this conference, representative of the shipping industry in every part of the world, it is desirable that international rules governing the carrying of deck cargoes of wood goods should be adopted, and that for the purpose of achieving this a committee consisting of shipowners belonging to the maritime nations concerned be appointed to consider the various systems now in force and to make a recommendation.

### International Load Line

That this conference, representative of the shipping industry in every part of the world, is of the opinion that the time is opportune for the introduction of international load line regulations. That with this object a committee be appointed to investigate and determine the form of regulations capable of international acceptance.

### Safety at Sea

Safety of life at sea depends upon the care of the navigator and upon the type and design of the vessel much more than upon life saving appliances.

The stability and seaworthy qualities of the vessel itself must be regarded as of primary importance, and every other provision made against possible disaster must be subordinated to that primary consideration.

In regulations providing for boats and other life saving appliances it is essential that the safety of the vessel itself should not be impaired, and that her decks should not be unduly encumbered, and that prompt handling of those boats which are adequate for all but extraordinary and exceptional disasters should not be hampered by the provision of additional boats.

That ocean going passenger vessels, as defined in Article 3 of Convention of 1914, should carry life saving appliances for all on board which should consist of both boats and buoyancy apparatus; the number of boats should be the greatest which can be carried under davits with due regard to the safety of the vessel and the prompt handling of such boats. It is undesirable to formulate hard and fast rules for the design of buoyancy apparatus, each of which should be considered on its merits so as to afford the greatest possible scope to shipowners, their naval architects and shipbuilders to devise efficient apparatus, and to provide for the stowage of such apparatus in a manner best calculated to attain the object in view.

As the introduction of wireless telegraphy has revolutionized the problem of saving life at sea, and as it has already been proved that the attempt to maintain constant communication by human agency cannot be made effective, an automatic alarm device should as soon as practicable be approved and permitted to take the place of the human watchers as provided in Article 34 of Convention, 1914, and if necessary for this purpose the international code should be altered in order that the alarm call can be taken by an automatic device. The legal obligation on ships which are compelled to carry wireless should be limited to the efficient operation of wireless for life saving emergency, and a limited knowledge of wireless sufficient for these life saving duties should be a qualification, for a certificate to be held by a member of such ship's company, so that no idle men will have to be carried to fulfill this exceptional duty.

That each association of shipowners represented at the conference should nominate representatives to serve on a committee to investigate and report upon the details of such modifications in respect of life saving appliances and wireless telegraphy in the Convention of London as might appear necessary in the light of experience and upon the basis of the principles accepted by the conference, and to take such steps as might be necessary to secure the international adoption and application of such modifications by the governments concerned. Such committee should have power to secure the assistance from time to time of technical assessors and others in an advisory capacity and to determine the time and place of its meetings.

## France Launches Biggest Tank Steamer

The Chantiers de la Gironde at Bordeaux recently launched the largest tank steamer ever built in France. The plans follow the steamers which the owner, the Societe Auxiliare de Navigation, has had built previously in England. The new vessel was christened MONIQUE. It may be fired either with coal or oil. Engines are triple expansion, with four boilers with forced draft.

The steamer is fitted with wireless. Her length is 129 meters, 54 centimeters; breadth, 17.30 meters; depth, 10.96 meters; draft with full charge, 8 meters; capacity, 10,500 tons; and displacement, 14,500 tons. There are nine oil tanks, each 8.38 meters in length. Each tank is further subdivided by a longitudinal bulkhead.

The hull is built on the Isherwood system. Two sister ships will be built, the MEROPE under construction at the Societe Provencale de la Ciotat and the MELPOMENE whose keel is already laid at the Chantiers de la Gironde at Bordeaux.

## New Vessel for Ellerman Is Launched

Messrs. William Gray & Co., Ltd., West Hartlepool, England, have launched the steel, single screw, geared turbine steamer CITY OF YOKOHAMA, building for the Hall line of the Ellerman Lines Ltd., Liverpool.

The vessel has a length overall of 484 feet 6 inches and breadth extreme of 58 feet 2 inches. She has two decks laid with long poop bridge, and forecastle decks.

The ship is fitted out to meet the owner's special requirements. The double bottom is arranged for the carriage of oil fuel and fresh water. The equipment includes fresh water distiller, steam windlass, steam steering gear, electric lighting and wireless installation.

The cargo handling appliances are complete. The propelling machinery, consisting of single screw double reduction geared turbines of the Parsons type, has been built by the Central Marine Engine Works of the builders. She has an oil fuel installation suitable for quick conversion to either oil or coal burning, and working in connection with the Howden system of forced draft.

---

The fleet of the Melbourne Steamship Co., Melbourne, Australia, has just been augmented by the delivery of the COOLANA, a steel single-screw steamship for carrying general cargo. She was built at Southwick-on-Wear.

## French Ship Completes Trial Trip

The large screw steamer P. L. M. 23 has completed her trials. She was built by Sir Raylton Dixon & Co., Ltd., at their Cleveland dockyard, Middlesbrough, England for La Compagnie des Chemins de Fer de Paris a Lyon et a la Mediterranee, whose shipping business is managed by the subsidiary company, La Societe Nationale d'Affretements.

The steamer is a single deck vessel of the Harroway-Dixon cantilever framed type, and she has a deadweight carrying capacity of about 8900 tons on a light draft of water. She has been built under special survey to meet both English and French requirements.

# What the British Are Doing

### Short Surveys of Important Activities in Maritime Centers of Island Empire

MOTORSHIPS carrying freight are now a common sight in the ports of the world. But it has remained for a British line, the British & African Steam Navigation Co., Ltd, Liverpool, to place in service the first motor driven ocean passenger liner. This vessel, the ABA, a twin screw ship of 8000 gross tons, recently left Liverpool for her first voyage to west African ports. She is equipped with two 8-cylinder, 4-cycle diesel engines of the Murmeister & Wain type built by Harland & Wolff, Belfast, Ireland. The engines develop 6600 indicated horsepower, the cylinders being 29½ inches in diameter with 43 5/8-inch stroke. The engine room auxixliaries, deck machinery and steering gear are driven by electricity, the current being generated by auxiliary diesel engine sets. The ABA has extensive passenger accommodations including first-class cabins specially adapted for tropical voyages. The ship is 450 feet long, 55 feet 6 inches molded beam, and 33 feet deep.

* * *

THE British government seems indisposed to accept the findings of the recent Genoa labor conference dealing with conditions of employment at sea. With regard to the hours of work, it has been pointed out by the minister of labor that it is extremely difficult to prescribe conditions owing to exigencies which arise at sea. As to the recommendation dealing with the establishment of national seamens' codes, the British government will propose legislation at some time in the future This is considered tantamount to refusing to carry out this recommendation of the Genoa conference. The minister of labor also has stated that so far as Great Britain is concerned a scheme of unemployment insurance for sailors is already in force. The Genoa conference also suggested that unemployment indemnities should be paid to seamen in case of the loss of their ship, at a rate equivalent to their full wages. The British government takes the position that such payments should be limited to two months after the loss of the ship.

* * *

BRITISH liner companies trading between the United Kingdom and the United States expect shortly to reduce their third class fares from New York to European ports by 20 per cent, mainly for the purpose of meeting the through rates to continental ports named by lines sailing direct from New York to the continent. It is also understood in Great Britain that third class rates on British liners westbound will be reduced during the winter.

* * *

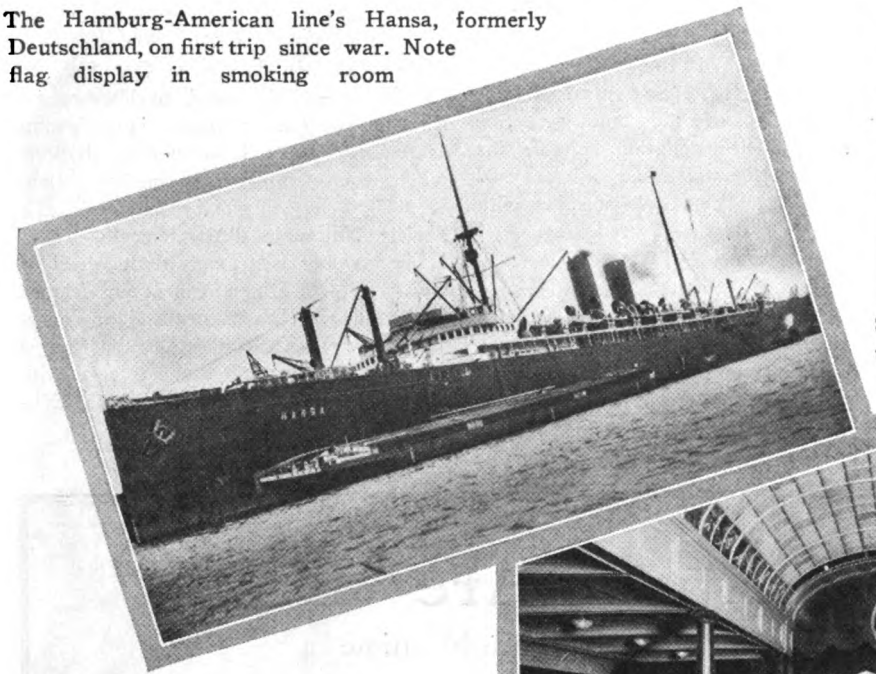
THE export coal trade is giving increasing employment to British ships and outgoing shipments in November were about 3,750,000 tons. During a recent week the port of Cardiff shipped 299,840 tons of coal and the river Tyne in the same week shipped 267,146 tons. Coal freights, which are an important factor in the British charter market, at present, are somewhat firmer. To the Near East 16 to 17 shillings ($3.20 to $3.40) is now being obtained, while to Bombay cargoes have recently been taken at 18s 6d ($3.70) per ton. Some business is being done with the Pacific coast of the United States and Canada at rates averaging 20 shillings ($4.00). Winter has set in suddenly in the Baltic and coal shipments to the upper gulf are suspended. Vessels are being directed to the lower gulf and south Finland until spring.

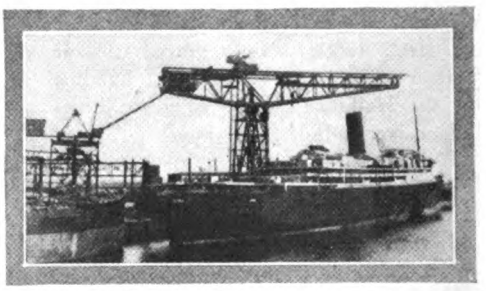
* * *

WILLIAM BEARDMORE & CO., have launched their first motorship. It is a single screw cargo vessel named PINZOU, built for MacAndrews & Co., London. As soon as the ship was put into the water and berthed in the firm's fitting out basin at Dalmuir, a start was made with the work of putting on board the 1300-horsepower internal combustion engine of the Beardmore-Tosi type. Owing to the absence of boilers, it is believed that this type of machinery will prove successful in a vessel engaged, as the PINZOU will be in the fruit carrying trade. A second vessel for the same owners, the PIZARRO, will shortly be launched by the Beardmore company, for which an engine of the same type and power is now nearly completed at Dalmuir, Scotland.

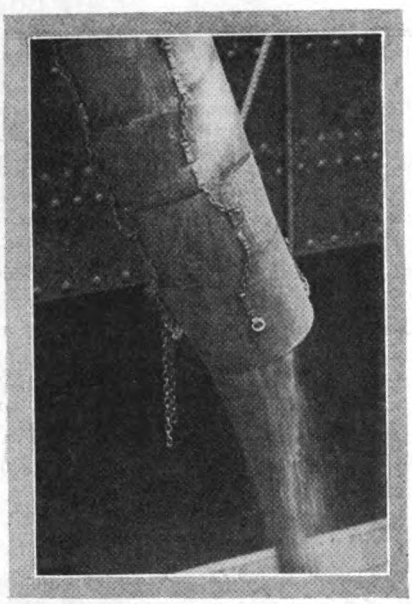
# Photographs from Far and Near

The Hamburg-American line's Hansa, formerly Deutschland, on first trip since war. Note flag display in smoking room

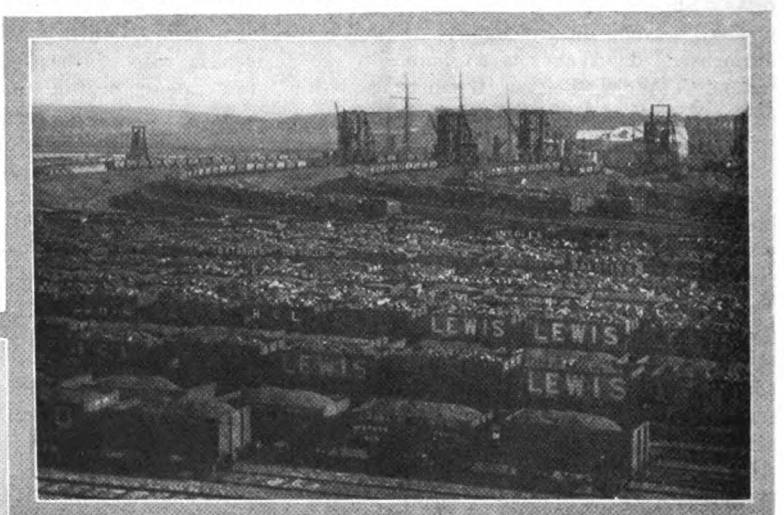




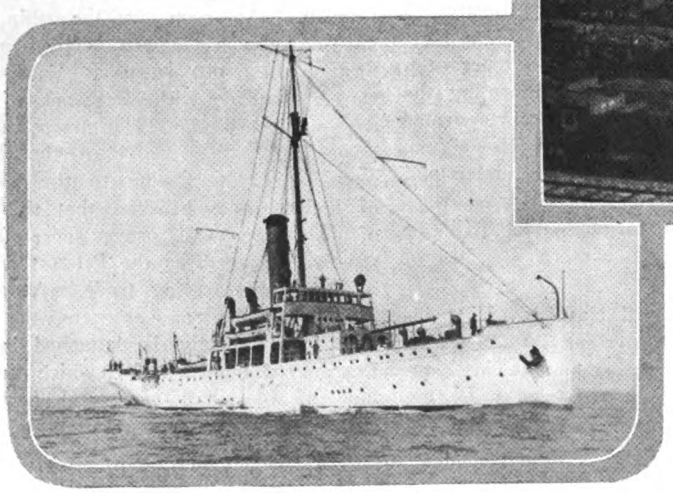
Steamer Majestic, delivered by Germany to England and transferred to the White Star line, outfitting at Hamburg



Grain for Europe: Pouring 1000 tons of wheat into the hold of the American freighter Hanley, at Seattle, first to carry bulk grain from Pacific



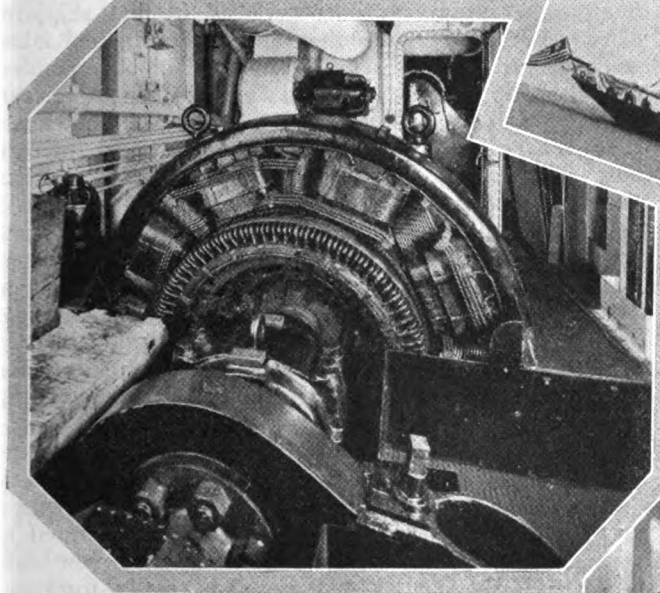

British coal exports are again giving employment to ships. This is a view at Barry, near Cardiff, showing loading tipples in the background.



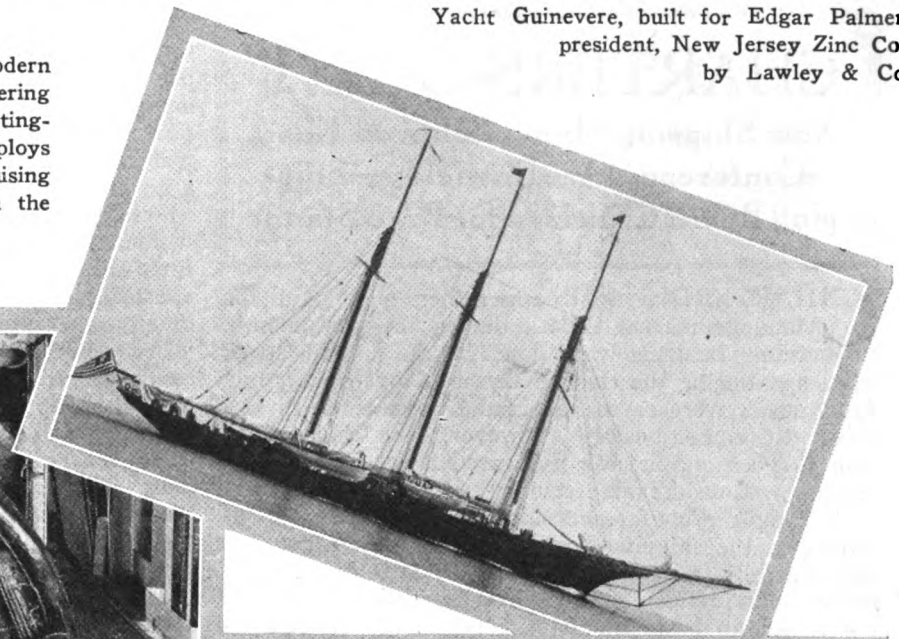
Tampa (at left), first electric coast guard cutter, passing successful trial

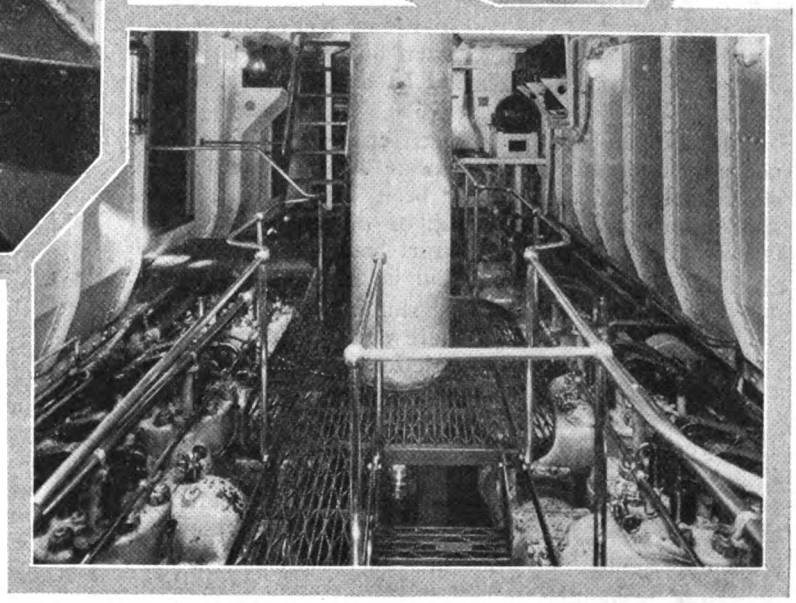
# Latest Marine News in Pictures

The Guinevere, one of the most modern and luxurious products of marine engineering is equipped with a 550-horsepower Westinghouse propeller motor. The yacht employs the diesel electric drive, and has a cruising speed of 10 knots. Below is a view in the engine room.

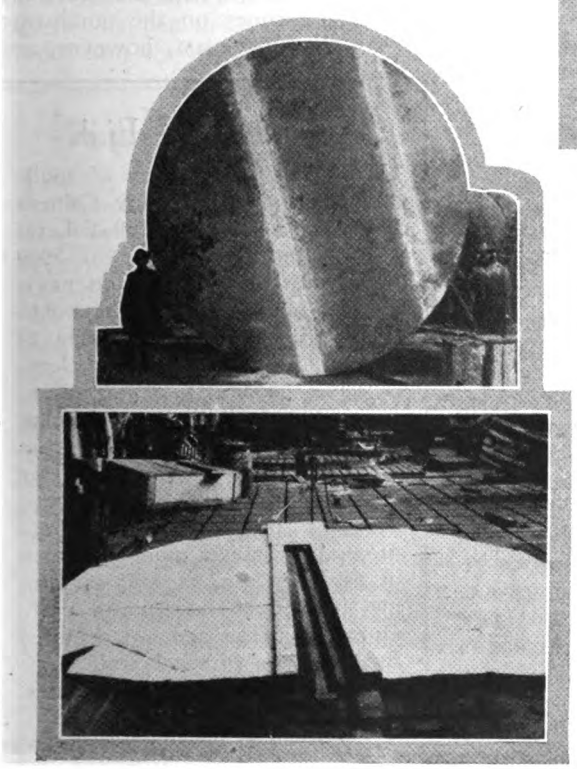


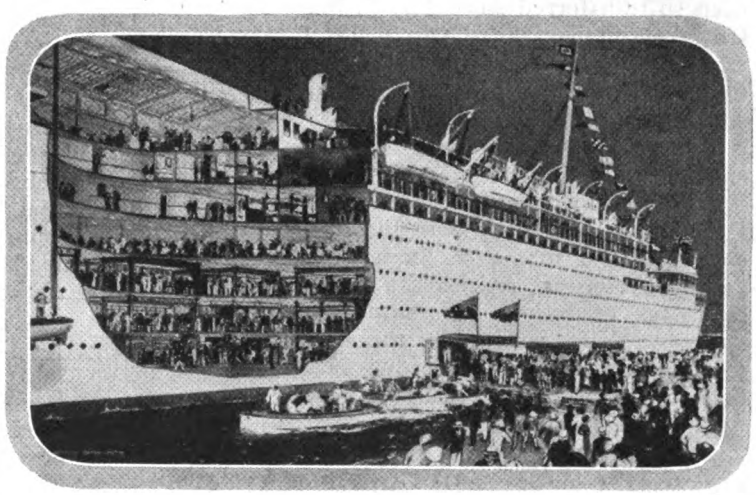
Yacht Guinevere, built for Edgar Palmer, president, New Jersey Zinc Co., by Lawley & Co.





An example of a gas-welded condenser sheet and set-up for welding. The entire sheet is covered with asbestos to reduce radiation.





Sectional view of the projected British trade ship which is to visit the principal ports of the world with exhibits of British manufactures

# World Charter Market Reviewed by

## CHARTERS QUIET

### New Shipping Slump Believed Near —Conferences Are Unwieldy—Shipping Board Criticized for Rate Stand

CHARTERING has been rather quiet and the tonnage market listless during the past month. Some business was done in the Cuban sugar trade and during the closing days of November a few full cargoes were cared for in the grain trade to Europe. November business, however, dealt chiefly with spot cargoes and it now is feared a set back is impending. Considerable trouble has been experienced in holding the conferences together but the representatives of the shipping board, it is said, have not lost heart entirely and efforts are being made to keep agreements intact. Time charters have sagged to 4s 9d on the 12 month basis and have gone no higher than 5s for good ships. The West Indies trades have been the most active in the charter business where small boats have been closed at $1.15 to $1.25 and larger boats at $1.10 to $1.15.

The shipping board has been criticised severely for not meeting these charter rates. In a number of instances foreign boats have been taken. The result is that only about one-fourth of the government fleet is now in operation. The effort has been to keep such vessels as remain in operation in a scheduled service.

**Board's Tactics Disappointing**

Despite this slump in shipping board services, there does not appear to be any sincere effort on the part of the government to revert to private ownership of ships. Although a number of vessels again have been offered for sale, the board has refused to grant any assistance to the pioneer purchasers of government tonnage. Much of the tonnage that could be sold would of necessity be placed under foreign flags, and although 16 ships have been so transferred since July 1, there is no assurance that the shipping board will make it easy for disposing of tonnage which is uneconomical to American operators. American steamshipmen are frankly despairing of the dilatory tactics of Washington.

An investigation of the agreements between foreign steamship lines and American railroads has been ordered. It has so far been discovered that these agreements have worked to the great aid of the foreign ships but to only a limited extent to the benefit of the American railroads. In some instances for every ton of freight a foreign ship has turned over to the American road under the agreement, the American rail line has delivered four tons of freight to the foreign ship.

Although foreigners have been so successful in taking business away from the United States, there is a growing coldness on the part of the executive in Washington toward the provisions of the Jones law. That act gives authority to prevent unreasonable competition on the part of foreign steamship companies and yet nothing was said when the Cunard Steamship Co. cut under the rates and captured a valuable case oil contract from the Standard Oil Co. Government ownership and operation is not a cure for this situation. If practices such as these continue the losses will become so great that it would be risky even for a government agency to continue.

While the freight situation has gone from bad to worse, the shipping board has continued its vain efforts to build up national passenger lines. Arguments are being presented to the war department designed to stop the army transport services so that shipping board vessels may take them up. Chairman Lasker has promised that the coastwise law will be extended to the Philippines next February and then American passenger vessels will be actively engaged in the transpacific services. Final decisions as to what private lines shall act as agents for these government lines has been slow, however. On the Atlantic it is rumored the Munson line may not only operate the important passenger line to the River Plate but may be requested to initiate for the shipping board a new passenger service to points on the west coast of South America. The United States lines, on the other hand, will curtail its services during the winter and the prospects are that Danzig will be dropped entirely, the line ending its services at Bremen.

**Initiates New Line to Nassau**

The Munson line has decided to initiate a service between New York and Nassau. This line now owns a passenger vessel which is operated to an east Cuban port, but a new passenger vessel will be ready for service shortly. This is the MUNARGO, built by the New York Shipbuilding Co., a vessel which will have the distinction of being the fastest ever engaged in the West Indies service. For the moment the west coast South America business continues dead and the Grace line steamers are experimenting with banana cargoes on the northward trip. Trade is better on the east coast, however, and the International Freighting Corp. is beginning a new direct freight service from Boston to Santos. The LIBERTY GLO is the first vessel used. A voluntary petition in bankruptcy has been filed against the Federal Line, Inc., of New York. The Polish Navigation Co. has gone into receivership, and the once crack American liner, NEW YORK, which made one trip

### Pirates Like Fish

PIRATES have a way of spoiling the day for many Chinese fishermen. The big Celestial republic has a coast line of 7000 miles with but a 40,000-ton navy. Military movements in the country require much of the time of the shallow draft naval craft, leaving the piratical plunderers unopposed. According to Admiral Li Ting-shing these "pirates from time to time make raids on the fishing fleets and capture boats, drive off the fishermen, and appropriate whatever money or catch of fish they can, as well as turning the prizes into pirate craft. Only six weeks ago we captured two of these piratical craft." Admiral Li wants some patrol boats.

for that company has been again resold. At marshal's sale the vessel brought only $70,000, the ship going to Worden & Co., steamship agents. She is being placed in the Reval-Danzig service as a sister ship to the GDANSK. The Polish Navigation Co. was an entirely separate and distinct entity from the Polish American Navigation Corp.

In the intercoastal services there has been considerable activity. The American-Hawaiian line has changes the names of the CLARKSBURG and FAIRMONT, ships which were acquired from the Coastwise Transportation Co., to NEBRASKAN and NEVADAN and will place them in the intercoastal service. The Nawsco lines, in conjunction with the Elder Steamship Co., will operate a fleet of refrigerator vessels in the intercoastal trade. So far the DOCHRA, DEERFIELD, NEPONSET and the WEST CATANANCE have been acquired for the new service.

The Clyde line is increasing its sailings between New York and Jacksonville to four ships a week, and is also advertising a New York to Baltimore freight service. The coastal business of this line has grown tremendously within the past few months. C. L. Dimon & Co., of New York, who recently acquired the CITY OF SEATTLE, is reported to be intending to place this passenger vessel in service between Jacksonville and Havana in conjunction with the CUBA.

**Intercoast Rates Held in Balance**

Conference rates in the intercoastal trade have been in the balance for some time past. While the shipping board is said to be endeavoring to hold to the schedules it is charged that some irresponsible operators of government tonnage break the conference. Considerable trouble resulted from the interjection of the Munson line in the business as the line was said to have booked pipe at below the conference rates on a vessel the operators obtained by charter in the open market. But Munson does not happen to be a member of the coastwise conference and therefore his action is decidedly different from some of the British lines. Not only did the Cunard line obtain a valuable case oil contract during the past month by cutting rates, but it was reported the Furness line obtained the contract to transport a number of locomotives built at Philadelphia for Argentine account. The Cunard oil contract with the Standard Oil Co. is said to have been the direct cause of the breakup of the Levant conference. All rates to the Near East are now open. As a result some low rates are alleged to have been made. Also following the announcement of open rates on grain to Portugal and Spain, the lines in those runs announced cuts in other rates ranging from 25 to 40 per cent. It is true the rates to these particular destinations have been holding extremely high in comparison with other ports, but this was taken as a further indication of the serious fight that is going on for business.

## Fines Oil Burner

JUDGE Learned Hand in the United States district court at New York, recently fined the oil burner SANTA TECLA of the W. R. Grace Steamship Co.'s fleet, $250 for polluting the waters of New York harbor by discharging oil. This is said to be the first case of its kind. The maximum fine for the offense is $2500. The SANTA TECLA, while docked at Pier 33, South Brooklyn, in February, 1920, was being supplied with oil for fuel when the tank overflowed through the carelessness of an attendant, and a considerable amount of oil was spilled into the water of the harbor. The question of the waste oil which is discharged from vessels is of growing importance.

# RATES ARE CUT

## Competition Growing Keener as Tonnage Rates Disclose—Cotton Agreement May Find America Holds Bag

The English offer to divide the Egytian cotton business with American vessels was proclaimed during the past month from Washington, but it is feared by shipping men that this is a hollow victory. The details of the "agreement" with the British have not been made public, but from England it is being declared the Egyptian business promises to return a loss during the next few years and therefore the British lines are happy to have American vessels share that loss.

In sympathy with the lowered rates to English, French Atlantic and German ports, the rates to the Paltic have been cut by from 10 to 25 per cent. Steamship men are of the opinion that these cuts, however, will be only temporary as they are anticipating a revival of business in that trade. Also conforming to the trend of the times the rates from Pacific ports to Europe are practically open.

**German Lines Admitted to Conferences**

The German lines have been reestablished in the transatlantic conferences. The Hamburg-American line which now has the BAYERN, DEUTSCHLAND, and the WUERTTEMBERG in the New York run, has been made a member of the Atlantic conference. The Hamburg-American line, Hamburg-South American line and Nordeutscher Lloyd have been re-elected members of the Outward & Homeward Brazil & River Plate Steerage Passenger conference and of the South American Saloon Passenger conference. The German companies have also joined the Far Eastern Homeward & Outward conference to the Straits Settlements, China and Japan. At the same time the council of ambassadors of the allied powers have agreed to permit German ships to enter the Black Sea.

The North German Lloyd Steamship Co. is said to be increasing its capital from 250,000,000 marks to 600,000,000 marks. Last month this company reopened offices in New York. Now it is announced the line will re-enter the New York service with the new year, beginning with the steamers SEYDLITZ, HANOVER and the YORCK.

The Cunard line will have weekly sailings from Canada next May, inaugurating regular lines between Montreal and Liverpool; Montreal and London; and Montreal and Plymouth, Cherbourg and London. This

line has just launched the ANDANIA, a new oil burner, which will be in the Canadian services. The Canadian Pacific lines are inaugurating a new West Indies service with the SICILIAN which sails between St. John and Havana, calling at Boston and Nassau. This line is also bringing the liner MONTCALM for the Montreal run from Liverpool.

**Due to Oversupply of Tonnage**

Collapse of freights to the United Kingdom and Northern Europe featured the North Pacific charter market during the month. Oversupply of tonnage and a cessation of buying in Europe are attributed as the causes. Grain exporters who chartered steamers in advance at from 55 to 60 shillings are said to have lost heavily with the market now down to 30 shillings and some parcels said to have been booked at 25 shillings. Apples are still moving at $1 per box as most of this space was booked in advance and refrigerated space is limited. Lumber has dropped to 100 shillings as against 150 shillings and other commodities have been reduced in proportion. The situation has been so chaotic that conference agreements have been temporarily abandoned and there have been indications of a rate war. The grain rate is now below prewar levels.

On the Oriental route, westbound business continues active although eastbound shipments are light and tramp tonnage is arriving from Japan in ballast. While no conference exists out of Seattle the volume of freight has automatically held the market up. Recently cotton was raised from 35 to 50 cents per hundredweight but reductions have been made in copper and salt herring. The grain rate to Japan and China has also sagged. The unprecedented movement of lumber products to Japan is still under way and space is already engaged three months in advance at going rates. Prompt service is scarce and several additional steamers are likely to be placed on berth during January and February. There is some inquiry from Chinese sources but the financial chaos in that country is retarding the confirming of orders.

One of the features of the month's charter market was the taking of seven Japanese freighters by the Robert Dollar Co. at private terms. These vessels are to carry about 25,000,000 feet of lumber to the Orient. Other recent fixtures include the charter of two foreign vessels for Australia at 72½ and 75 shillings respectively per thousand feet for lumber. Some steam tonnage has been taken at private terms for the lumber trade to China while three additional sailing ships were fixed for logs from North Pacific to Japan on a lump sum basis.

The intercoastal route shows constant activity with 10 or a dozen lines connecting Pacific and Atlantic American ports. Further rate readjustments on a number of commodities have recently been made. The steamship lines are watching the revision of rail rates with interest.

Sail tonnage continues a drug on the market and every North Pacific port has its quota of idle American sailors. The demand is so quiet that several foreign schooners also are idle. Two sailing vessels have been taken for lumber to South Africa, one at a rate of $23.50 and the other at $25 for parcel lots.

With shipping board steamers swinging at anchor foreign tonnage is handling a majority of cargo in and out of North American ports. The board rate on lumber to the Orient is $16 but foreign tonnage is carrying this cargo for $1 under that figure. The whole situation reflects a tendency towards "normalcy" not only with reference to the level of ocean freights but as to the movement of cargo as it was before the war. While foreign owners are keeping their fleets reasonably busy the American merchant marine is to a certain extent succumbing to conditions and to the severe competition of foreign fleets.

**Grain Trade Stiffens Rates**

Charters at Northern California ports stiffened a little during November, due to a slightly improved tone in the European grain trade. A slight improvement in general cargo condition reducing the amount of grain necessary to complete a cargo is said to be responsible for the bettering of the rate.

The new Stark Steamship line has applied for the right to charter the steamers GEORGINA ROLPH, 1385 tons, and ANNETTE ROLPH, 1391 tons, for use in freight service between San Francisco and Portland. The company states it figures a monthly revenue of $64,000 from the operation of these two vessels, at a net profit of $7,673.96. In case these two cannot be chartered, the company announces its intention of chartering others, with preference given to motorships.

The new Japanese freighter, KOBUN MARU, has been chartered to load wheat on the Columbia river for Yokohama. The Norwegian steamer SAGALAND, 1588 tons, has been chartered for December loading of grain on the Columbia river for the United Kingdom. Atkins, Kroll & Co., have chartered the British motor auxiliary TAGUA, 170 tons, for a voyage from San Francisco to Raratonga for December loading.

**Gulf Operators Hopeful**

Operators of ships out of Gulf ports have become decidedly more optimistic as a result of the increasing activity noted in the charter market for both steam and sailing vessels during November, especially the latter half. Although comparatively few fixtures were reported for direct sailings from Gulf ports, the number of charters closed in other shipping districts was not without its favorable effect on New Orleans sentiment.

Following the demand for prompt carriers for grain, rates stiffened materially for a while although toward the end of the month a partial reaction set in. The inquiry for charters for sugar out of Cuban ports also served to strengthen the market with shipping men inclined to view the mention of longer time requirements as one of the most hopeful signs.

Among the November bookings mentioned in the Gulf trade were the British steamship ATLANTIC, 1916 tons net, lumber, Gulf to River Plate 200 shillings, December; the Dutch steamer THUBAN, 3175 tons, Gulf to Buenos Aires or Rosario, lumber, 180 shillings, December; and the American steamship LAKE ZALISKI, 1452 tons, New Orleans to Boston, sugar, 22½ cents.

**Extends Free Time to 15 Days**

Action of the Boston & Maine railroad in extending its free time at docks from six to 15 days is one of several factors contributing to recently improved trading at the port of Boston. The closing of the port of Montreal has diverted large quantities of grain to Portland, Me., and Boston. Particularly heavy shipments of grain have recently been made for Mediterranean points. Imports of wood pulp have considerably increased due to the diversion of cargoes which would have gone

# Ocean Freight Rates

**Per 100 Pounds Unless Otherwise Stated**

**Quotations Corrected to Dec. 1, 1921, on Future Loadings**

| New York to | Grain | Provisions | Cotton (H.D.) | Flour | General cargo cu. ft. | General cargo 100 lbs. | ††Finished steel | Coal from Virginia cities |
|---|---|---|---|---|---|---|---|---|
| Liverpool | 3/6 | $0.60 | $0.25 | $0.22 | $0.40 | $0.85 | $7.00T | ..... |
| London | 3/6 | 0.60 | 0.25 | 0.22 | 0.40 | 0.75 | 7.00T | ..... |
| Christiania | $0.21 | 0.40 | 0.47 | 0.26 | 0.50 | 1.00 | 8.00T | $4.00T |
| Copenhagen | 0.21 | 0.40 | 0.47 | 0.26 | 0.50 | 1.00 | 8.00T | 4.00T |
| Hamburg | 0.15 | 0.35 | 0.30 | 0.20 | 0.45 | 0.82½ | 9.00T | 3.50T |
| Bremen | 0.15 | 0.35 | 0.30 | 0.20 | 0.45 | 0.82½ | 9.00T | 3.50 |
| Rotterdam | 0.14 | 0.32½ | 0.30 | 0.19 | 0.40 | 0.75 | 8.00T | 3.25T |
| Antwerp | 0.14 | 0.32½ | 0.30 | 0.19 | 0.40 | 0.75 | 8.00T | 3.25T |
| Havre | 0.14 | 0.50 | 0.27½ | 0.19 | 0.40 | 0.75 | 8.00T | 3.50T |
| Bordeaux | 0.14 | 0.50 | 0.27½ | 0.19 | 0.40 | 0.75 | 8.00T | 3.50T |
| Barcelona | 0.20 | 20.00T | 0.55 | 0.45 | —20.00T | — | 12.00T | 4.25T |
| Lisbon | 0.20 | 20.00T | 0.55 | 0.45 | —20.00T | — | 12.00T | 4.00T |
| Marseilles | 0.22½ | 0.75 | 0.75 | 0.40 | —20.00T | — | 10.00T | 3.85T |
| Genoa | 0.21 | 0.75 | 0.75 | 0.50 | 0.50 | 1.00 | 9.00T | 4.00T |
| Naples | 0.21 | 0.75 | 0.75 | 0.50 | 0.50 | 1.00 | 9.00T | 4.00T |
| Constantinople | 0.22 | 10.00T | 0.65 | 0.22 | —15.00T | — | 15.00T | 4.75T |
| Alexandria | 0.22 | 15.00T | 0.75 | 0.27 | —22.00T | — | 15.00T | 4.00T |
| Algiers | 0.35 | 0.85 | ..... | 0.40 | —22.00T | — | 12.00T | 4.00T |
| Dakar | ..... | 20.70T | ..... | 20.70T | —25.20T | — | 18.00T | ..... |
| Capetown | 13.50T | 23.00T | ..... | 13.50T | —23.00T | — | 13.50T | ..... |
| Buenos Aires | ..... | ..... | ..... | ..... | —20.00T | —† | 8.00T | 4.00T |
| Rio de Janeiro | ..... | ..... | ..... | ..... | —22.50T | —† | 12.50T | 4.00T |
| Pernambuco | ..... | ..... | ..... | ..... | —23.50T | —† | 13.50T | 4.50T |
| Havana | 0.35* | 0.40* | ..... | 0.35* | 0.47* | 0.94* | 0.30* | 1.60T |
| Vera Cruz | ..... | 0.60 | ..... | 0.30 | 0.52½ | 1.05 | 0.35 | 1.25T |
| Valparaiso | ..... | 1.25 | ..... | 0.85 | 0.70 | 1.25 | 14.00T | 4.00T |
| San Francisco | ..... | 0.75 | ..... | 0.85 | ..... | ..... | 0.75 | ..... |
| Sydney | ..... | ..... | ..... | ..... | 20.00 to 25.00 | | 11.50 | ..... |
| Calcutta | ..... | 21.00T | ..... | ..... | —21.00T | — | 18.00T | ..... |

T—ton. †Landed. ††Heavy products limited in strength. *Extra charge for wharfage.

| From North Pacific Ports to | Lumber Per M. ft. |
|---|---|
| San Francisco | $6.50 to $7.00 |
| South California | 7.50 to 8.00 |
| Hawaiian Islands | 10.50 to 12.00 |
| New Zealand | 15.00 to 18.00 |
| Sydney | 15.00 to 18.00 |
| Melbourne-Adelaide | 18.00 to 20.00 |
| Oriental ports | 14.50 to 17.50 |
| Peru-Chile | 17.00 to 18.00 |
| South Africa | 25.00 |
| Cuba | 18.00 |
| United Kingdom | 100s to 125s |
| United Kingdom (ties) | 100s to 125s |
| New York | 17.00 to 20.00 |
| New York (ties) | 16.00 |
| Buenos Aires | 17.00 |
| | Flour and Wheat |
| Oriental ports | $6.00 to $6.50 |
| U. K. | 25s to 30sT |
| Scandinavia | 30s to 35sT |
| Mediterranean | 30s to 35sT |
| | Steel |
| Oriental ports | $ 5.00T |
| | Cotton |
| Oriental ports | $10.00T |
| | Apples |
| United Kingdom | $1.00 per box |
| | Copper |
| Oriental ports | $6.50 |

### Principal Rates To and From United Kingdom

| | s | d |
|---|---|---|
| Grain, River Plate to United Kingdom | 25 | 0 |
| Coal, South Wales to Near East | 16 | 6 |
| Coal, Newcastle to France | 7 | 3 |
| Coal, South Wales to Buenos Aires | 19 | 0 |
| Iron ore, Bilboa to Middlesbrough | 7 | 6 |
| General British market, six months time charters, per ton per month | 5 | 0 |

## Bunker Prices

### At New York

| | | Coal alongside per ton | Fuel oil 16 baume per barrel | Diesel oil gravity 25-30 per gallon |
|---|---|---|---|---|
| Jan. | 8 | $7.00 | $2.94 | 10 cents |
| Apr. | 6 | 6.40 @ 6.75 | 1.95 | 6.5 cents |
| July | 8 | 5.75 @ 6.25 | 1.45 | 4.25 @ 5.25 cents |
| Oct. | 4 | 5.85 @ 6.15 | 1.45 | 4.25 @ 5.25 cents |
| Nov. | 4 | 5.75 @ 6.00 | 1.70 | 6.15 @ 7.00 cents |
| Dec. | 3 | 5.60 @ 6.10 | 1.60 | 5.00 @ 6.00 cents |

### At Philadelphia

| | | Coal per ton | Fuel oil 16 baume per barrel | Diesel oil gravity 25-30 per gallon |
|---|---|---|---|---|
| Jan. | 10 | $9.45 | $2.08 | ..... |
| Apr. | 7 | 5.75 @ 6.00 | 1.98 | 5.7 cents |
| July | 7 | 4.90 @ 5.45 | 1.47½ | 4.5 cents |
| Oct. | 6 | *6.10 @ 6.25 | 1.80 | 4.00 @ 4.25 cents |
| Nov. | 7 | *5.95 @ 6.10 | 1.68 | 5.00 @ 6.00 cents |
| Dec. | | *5.50 @ 5.70 | 1.68 | 4.75 @ 6.00 cents |

*Trimmed in.

### Other Ports

| | |
|---|---|
| Boston coal, per ton, | $7.55 |
| Boston, oil, per barrel | 1.62 |
| Cardiff, coal, per ton. | 17s |
| London, coal, per ton. | 20s |
| Antwerp, coal, per ton | 25s |

to Baltimore had it not been for the 15-day free time allowance at Boston. Considerable interest has attached to the arrival of the LIBERTY GLO, bringing a full cargo of coffee from Santos, Brazil. The cargo included 46,000 sacks valued at approximately $500,000, and inaugurated a permanent service between Santos and Boston. Other new services contemplated or secured for Boston include a fortnightly service between Boston and London by the Cunard Steamship Co., a direct service from Boston to Havre and Dunkirk, France, by Patterson Wylde & Co., and a service between St. John, N. B., and Havana with a call both ways at Boston for freight and passengers by the Canadian Pacific railroad. Resumption of prewar service between Boston and Liverpool and Queenstown by Cunard also is announced with a new 21,000-ton vessel, the LACONIA, assigned for this service. Exports during November through the port of Boston fell off slightly as against those for October, but the latter part of November and early December showed an export rate well up to the October average and several authorities were of the opinion December would be the best month of the year.

The Danish motorship CHILI, of the East Asiatic line, has been diverted from the European trade to join the fleet of Japanese and British steamers chartered to carry cargoes from the Pacific coast to the Orient, by J. J. Moore & Co., who, it is understood, will handle first a cargo of lumber from Vancouver to Yokohama.

The Royal Mail Steam Packet Co. has placed the passenger steamer ARAGUAYA in the New York-Bermuda services for the winter. The National Steam Navigation Co. of Greece, is adding the passenger liner CONSTANTINOPLE, ex-German BREMEN, to the New York-Levant run.

# British Ocean Rates Seek Lower Level

**From Our European Manager**

London, Dec. 13, (By cable).—Freight quotations are generally lower except in the grain route from the River Plate. General cargo between United Kingdom and the Pacific coast of the United States has been cut from 50 to 25 shillings a ton. Several steamers have been chartered to carry 35,000 tons of Welsh coal to Honolulu. Coal inquiries from India for 250,000 tons have stimulated the Far Eastern trade. River Plate business is now on a more profitable basis. Steamers continue to sell at extremely low prices. One fleet of 10 vessels of an average age of four years was auctioned off last week at £7 a ton.

# Assigned Shipping Board Vessels

CAPE MAY, 10,325 tons, assigned United States & Australasia line managing agent; withdraw division of operations managing caretaker.

CECIL COUNTY (tanker), 10,254 tons, time charter, Gulf Refining Co. canceled; assigned Walker & Daly for operation in addition to management.

WARWICK (tanker), 6000 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

CONEJOS, 7825 tons, assignment division of operations managing caretaker canceled; assigned Moore & McCormack Co., Inc., managing agent; withdraw managing agency A. H. Bull & Co.

BIRD CITY, 7825 tons, assigned International Freighting Corp. managing agent; withdraw division of operations managing caretaker.

BALDBUTTE (tanker), 9298 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

BALDHILL (tanker), 9298 tons, assigned Walker & Daly management operation; withdraw division of operations managing caretaker.

CATHWOOD (tanker), 10,078 tons, assigned Columbus Shipping Co. management operation; withdraw division of operations managing caretaker.

SUTHERLAND, 7378 tons, assigned Black Diamond Steamship Corp. managing agent; withdraw division of operations managing caretaker.

WEST CHOPAKA (new steamer), 11,000 tons, assigned Struthers & Dixon managing agent.

HAHIRA, 10,238 tons, assigned Columbus Shipping Co. management operation; withdraw division of operations managing caretaker.

HADNOT, 9100 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

METON, 9847 tons, assigned Walker & Daly management operation; withdraw division of operations managing caretaker.

HAGOOD, 10,238 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

SAC CITY, 7825 tons, assignment division of operations managing caretaker canceled; assigned Mississippi Shipping Co. managing agent; withdraw managing agency Baltimore Steamship Co.

LABETTE, 7825 tons, assignment Daniel Ripley & Co. managing agent canceled; assigned Munson Steamship Line managing agent; withdraw division of operations managing caretaker.

COLLINGSWORTH, 7840 tons, assigned Trosdal, Plant & Lafonta managing agent; withdraw managing agency Mississippi Shipping Co.

INDIANA HARBOR, 4155 tons, assigned Baltimore Steamship Co. managing agent; withdraw division of operations managing caretaker.

PORTOLA PLUMAS (tanker), 10,078 tons, assigned Walker & Daly management operation; withdraw division of operations managing caretaker.

BOHEMIAN CLUB, 9798 tons, assigned Struthers & Dixon management operation.

LAKE FLORAVISTA, 4145 tons, assignment division of operations managing caretaker canceled; remains New York & Cuba Mail Steamship Co. managing agent.

HALSEY, 10,078 tons, assigned Columbus Shipping Co. management and operation; withdraw division of operations managing caretaker.

SINSINAWA, 7840 tons, assignment division of operations managing caretaker canceled; assigned Baltimore Oceanic Steamship Co. managing agent; withdraw managing agency Oriental Navigation Co.

POMONA, 11,724 tons, assignment division of operations managing caretaker canceled; assigned Pacific Steamship Co. managing agent; withdraw managing agency Williams, Dimond & Co.

WEST KATAN, 8541 tons, assignment division of operations managing caretaker canceled; assigned Swayne & Hoyt, Inc. managing agent; withdraw managing agency Williams, Dimond & Co.

EASTERN LIGHT, 10,705 tons, assigned United States & Australiasia Line managing agent; withdraw division of operations managing caretaker.

EAST SIDE, 7388 tons, assigned Cosmopolitan Shipping Co. managing agent; withdraw division of operations managing caretaker.

WENATCHEE, 11,442 tons, remains Pacific Steamship Co. for one additional transpacific round voyage only.

WEST HIMROD, 8368 tons, assigned Barber Steamship Lines managing agent; withdraw managing agency Pacific Steamship Co. delivery to be effected at Manila.

BADGER, tug, assigned operating department, New York, for service in New York harbor.

LEOPARD, tug, assigned operating department, New York, for service in New York harbor.

BARSTOW, tug, assigned operating department, New York, for service in New York harbor; withdraw division of operations managing caretaker.

BALLENAS, tug, assigned operating department, New York, for service in New York harbor; withdraw division of operations managing caretaker.

DILLWYN, 10,111 tons, assigned Walker & Daly management operation; withdraw division of operations managing caretaker.

DERBYLINE, 10,100 tons, assigned Walker & Daly management operation; withdraw division of operations managing caretaker.

HAHATONKA, 10,238 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

CITY OF ALAMEDA, 10,000 tons, assigned Columbus Shipping Co. management operation; withdraw division of operations managing caretaker.

YOUNGSTOWN, 9781 tons, assigned Lykes Bros. managing agent; withdraw division of operations managing caretaker.

WHEELING MOLD, 5340 tons, assigned J. H. Winchester & Co. managing agent; withdraw division of operations managing caretaker.

PYLOS, tug, assigned operating department, New York, for service in New York harbor; withdraw division of operations managing caretaker.

TERRE HAUTE, 8758 tons, assignment Mississippi Shipping Co. managing agent canceled; remains International Freighting Corp. managing agent.

CLONTARF, 7840 tons, assignment division of operations managing caretaker canceled; remains A. H. Bull & Co. managing agent.

LAKE ELSAH, 4278 tons, assigned Clyde Steamship Co. managing agent; withdraw division of operations managing caretaker.

CRIPPLE CREEK, 9907 tons, assigned S. Sgitcovich & Co. managing agent; withdraw division of operations managing caretaker.

TIPTON, 4510 tons, chartered bareboat basis Lykes Bros.; withdraw division of operations managing caretaker.

SABOTAWAN, 7814 tons, assigned A. H. Bull & Co. managing agent; withdraw managing agency United American Lines.

WEST CARNIFAX, 8555 tons, assigned Lykes Bros. managing agent; withdraw division of operations managing caretaker.

LABETTE, 7825 tons, assigned Daniel Ripley & Co. managing agent; withdraw division of operations managing caretaker.

HOLLYWOOD, 8643 tons, assigned General Steamship Corp. managing agent; withdraw division of operations managing caretaker.

HANCOCK COUNTY, 4155 tons, assigned Page & Jones managing agent; withdraw division of operations managing caretaker.

HUMACONNA, tug, assigned to operating department, New York, for service in New York harbor; withdraw management operation Potter Trans. Co.

WEST KEENE, 8541 tons, assigned International Freighting Corp. managing agent; withdraw division of operations managing caretaker.

COLLINGSWORTH, 7840 tons, assigned Mississippi Shipping Co. managing agent; withdraw division of operations managing caretaker.

TUSLA, 7825 tons, assigned C. H. Sprague & Son managing agent; withdraw division of operations managing caretaker.

ARGOSY, 7825 tons, assigned Wessel Duval & Co. managing agent; withdraw division of operations managing caretaker.

VITTORIO EMANUEL III, 7382 tons, assigned Baltimore Steamship Co. managing agent; withdraw division of operations managing caretaker.

EASTERN GUIDE, 6258 tons, assigned Moore & McCormack Co. Inc. managing agent; withdraw division of operations managing caretaker.

APUS, 9605 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

WEST CHOPAKA, 11,000 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

WEST O'ROWA, 8388 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

WEST PROSPECT, 11,000 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

WEST CALERA, 8584 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

WEST JENA, 8694 tons, assigned Struthers & Barry managing agent; withdraw managing agency Struthers & Dixon; delivery to be effected upon arrival at United States port.

STOCKTON (tanker), 9816 tons, assigned Struthers & Barry management operation; withdraw management operation Struthers & Dixon; delivery to be effected upon arrival at United States port.

BOHEMIAN CLUB (tanker), 9898 tons, assigned Struthers & Barry management operation; withdraw management operation Struthers & Dixon; delivery to be effected upon arrival at United States port.

HAMER (tanker), 9985 tons, assigned Struthers & Barry management operation; withdraw management operation Struthers & Dixon; delivery to be effected upon arrival at United States port.

LAKE ELMONT, 4278 tons, assignment division of operations managing caretaker canceled; assigned Clyde Steamship Co. managing agent; withdraw managing agency Mallory Steamship Co.

DANNEDAIKE (tanker), 6008 tons, assigned McAllister Bros. management operation; withdraw division of operations managing caretaker.

LAKE AGOMAK, 3225 tons, chartered bareboat basis Baltimore & Carolina Steamship Co.; withdraw division of operations managing caretaker.

TIPPICANOE (tanker), 11,375 tons, assigned Struthers & Barry management operation; withdraw management operation Struthers & Dixon.

LAKE FILLMORE, 4095 tons, assigned Clyde Steamship Co. managing agent; withdraw managing agency Mallory Steamship Co.

LAKE GOVAN, 3525 tons, assigned Munson Steamship Line managing agent; withdraw division of operations managing caretaker.

LAKE KYTTLE, 3400 tons, chartered bareboat basis Munson Steamship Line; withdraw managing agency Munson Steamship Line.

# Architects Study Ship Drives

## Naval Society Abandons Armament Discussion and Takes Up Problems Concerning Merchant Ship Propulsion

IN VIEW of the international conference on the limitation of armaments which began its meeting in Washington Nov. 12, the importance of the twenty-ninth annual meeting of Society of Naval Architects and Marine Engineers, which was held in New York the week of Nov. 14, was somewhat limited. It had been planned to discuss the question of naval armaments, but this phase of the convention was passed with the reading of one or two papers on the subject. The convention, however, did bring more light to bear upon electric propulsion and also contributed largely to the literature on the designing of passenger boats, two features of the American merchant marine development which probably are the most important today. The convention also marked the passing of the administration of Admiral Washington L. Capps who had served the society as president for three years.

As upon previous occasions, the two days of the convention were given over to the reading and discussion of technical papers. On Friday of the convention week the society held its annual banquet at the Waldorf-Astoria, with more than 900 guests. While this number was smaller than last year, it was considered a record in view of the of the fact companion societies were giving banquets in New York upon the same evening.

At the architects and engineers banquet, a number of addresses were given and toasts to the army and navy were appropriately responded to. The outstanding address of the evening was given by Albert D. Lasker, chairman of the shipping board, who frankly pictured the low estate of shipping affairs. But Mr. Lasker declared that this low estate was rock bottom and we now have something to measure from. He pointed out that with a naval holiday practically assured and other reasons for tax burdens removed, it was expected President Harding may do something handsome for the American merchant marine. Mr. Lasker intimated that a subsidy measure would be proposed to congress. He also pointed out that the emergency fleet owned by the government is not a commercial fleet in the best sense of the word and that practically only 5,000,000 tons of the ships owned by the government can be held to be good ships commercially. To offset that fleet, which consists chiefly of freighters, it is going to be necessary to construct passenger and refrigerator ships.

The speech by Chairman Lasker was followed and supplemented by a speech by Commissioner Plummer. These speeches held great promise to the visiting architects and they were applauded to the echo. In the opening address to the society, delivered the day before, Admiral Capps had been frankly blunt in outlining the situation. As president he briefly mentioned the satisfactory conditions pertaining to membership and finance of the society and then turned to the world maritime affairs.

### New Officers

**President**

(For a Term of Three Years)
WALTER M. MCFARLAND

**Vice Presidents**

(For Terms of Three Years)
LEWIS NIXON
H. I. CONE
C. H. PEABODY
J. W. POWELL

**Members of Council**

(For Terms of Three Years)
ANDREW FLETCHER
J. H. MULL
C. W. DYSON
R. H. M. ROBINSON
W. G. CONE
ROBERT HAIG

**Associate Members of Council**

(For Terms of Three Years)
E. M. BULL
J. N. PEW JR.

**Executive Committee**

STEVENSON TAYLOR
W. L. CAPPS
ANDREW FLETCHER
F. L. DUBOSQUE
J. W. POWELL

**Committee on Papers**

F. L. DUBOSQUE
J. HOWLAND GARDNER
H. L. ALDRICH

**Secretary and Treasurer**

DANIEL H. COX

"There is nothing abnormal in the comparative confusion and lack of stability in industrial and trade conditions now confronting the world," said Admiral Capps. "History is in reality repeating itself. Conditions which prevailed at the end of the Napoleonic wars, as well as those which have developed at the conclusion of other great conflicts are being paralleled at the present time, although on a vastly greater scale.

"As opposed to the great increase in overseas tonnage, it is worthy of note that the increase in American tonnage engaged in domestic trade in the 7-year period from 1914 to 1921 was comparatively insignificant, being less than 5 per cent.

"It is also interesting to note that the total increase in world tonnage in the 7-year period preceding and following 1914 was approximately 10,000,000 tons, the percentage increase for the 7-year period 1907 to 1914 being really greater than that for the 7-year period which included the war expansion.

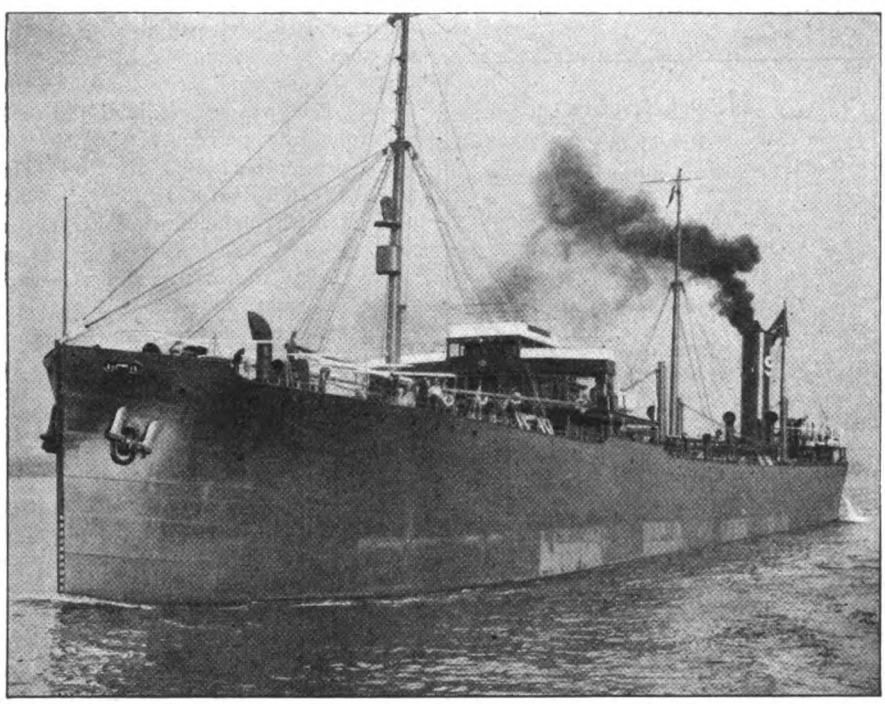
"Nor were the increases in American trade in American bottoms less significant than the increases in American overseas tonnage. We had, during the 7-year period, 1914 to 1921, a tremendous increase in overseas entries and clearances in American vessels, with a slight decrease for foreign vessels, the net result being, of course, a great increase in American world trade.

"No one who has considered carefully the trade economics of the situation has doubted for an instant that serious readjustments must sooner or later, take place and that those readjustments would, temporarily at least, involve many difficulties. Those readjustments are now in the making and temporary stagnation in American shipbuilding and a decrease in overseas commerce is inevitable until the abnormal developments due to the war have been placed in their proper relation to normal peacetime conditions.

"The membership of this society is, of course, profoundly interested in the developments which have taken place and are now proceeding. The effect upon the shipbuilding industry as a whole, at the present time, is serious. Highly developed shipbuilding plants are, in great measure, idle. Hundreds of comparatively new steel vessels are tied up with no immediate prospect of obtaining cargoes. That these conditions are temporary may well be true, and the period of readjustment must be accepted, with as much equanimity as possible, as a necessary part of the aftermath of the stupendous struggle through which the world has recently passed.

"As in the days of the clipper ship

when the American shipbuilder excelled all others and the American merchant marine was at the forefront in tonnage and efficiency, we may confidently look forward to a period when efficiency of design, construction and operation of the powerdriven cargo and passenger vessels of the future will place the United States again among the leaders of maritime development, and it is to be hoped that the rivalry through which such results may be accomplished will be of an entirely friendly character largely as represented by passenger and cargo vessels rather than by vessels primarily designed for destructive purposes"



TRIAL TRIP OF THE DIXIE ARROW

This tanker, built for the Standard Transportation Co. at the plant of the New York Shipbuilding Corp., Camden, N. J., left the yard on her trial trip, Nov. 23, 1921. The overall dimensions are 485 feet in length, beam 62 feet 6 inches, and depth 39 feet 6 inches. The tanker is equipped with three single-end Scotch main boilers and one 3200 indicated horsepower engine of the 4-cylinder, quadruple expansion, 4-crank, direct acting, surface condensing type. This engine is capable of propelling the vessel loaded to the specified draft, at a speed of 11 knots. The vessel will have 10 double main cargo tanks with a combined capacity of 3,500,000 United States gallons. She has a displacement of 18,277 tons and carries a crew of 62 men.

## Marine Draftsmen Change Society's Name

The name of the American Society of Marine Draftsmen was changed to the American Society of Marine Designers at a convention of the society held in New York, Nov. 17, 18 and 19. The society was organized in 1912 at Philadelphia and branches were established at various shipbuilding centers. During the war there were 26 branches, but with the dwindling of work, the society now has only 12 branches. The new officers elected for the next year are as follows:

President, E. H. Monroe, Washington; vice president, C. C. Jacobson, New York; treasurer, J. B. Sadler, Norfolk, Va.; secretary, B. G. Barnes, Quincy, Mass.; and executive committeemen, John Thomson, Bethlehem, Pa.; A. H. Haag, Baltimore and H. E. Anderson, Washington.

It was decided that the next convention of the society will be held under the auspices of the Delaware river branch at Philadelphia.

## Equipment Association Elects Officers

At the annual meeting of the Marine Equipment Association of America, held in New York, Nov. 16, a resolution was adopted requesting the executive committee of the association to consider the changing of the name of the association to the Marine Association of America. When the meeting was in session it was impossible to estimate whether the expenses of the exposition being held at the same time had been met or not, although the president of the association stated he believed the receipts were such as to relieve all the members of any fear of an assessment.

Some discontent was voiced in the returns on a questionnaire to the manner in which the publicity was managed for the exposition, but it was promised that an effort will be made to meet that criticism and all others before the next marine show is held. It was demonstrated at the meeting that little could be done in an open session as under the constitution and by-laws which were drawn for the association last year, practically all the business of the association must be transacted by the executive committee. Even in the case of electing officers no nominations could be made from the floor and the slate offered by the nominating committee had to be accepted as the by-laws contain elaborate provision for requiring all other nominations to bear a long list of signatures and the nominations to be filed a considerable time in advance of the meeting.

E. A. Simmons, president of the Simmons-Boardman Co., was re-elected president of the association to serve another year. The other officers elected were vice president, William Wampler, the Elcon Co.; secretary, Robert B. Lea, the Sperry Gyroscope Co., and treasurer, H. C. Davis, Row & Davis, Engineers, Inc. To fill the vacancies on the executive committee these were elected: W. P. Smith, William Cramp & Sons Ship & Engine Building Co.; A. C. Ashton, the Ashton Valve Co.; E. S. Sanderson, the Scoville Mfg. Co.; Gardner Cornett, the Pneumercator Co.; K. W. Heinrich, the Bethlehem Shipbuilding Co.; and Benjamin Neilds Jr., the National Malleable Castings Co.

## Growth of Motor Ships Is Shown in Report

Rapid adoption of the motorship is shown in figures of the transportation division, bureau of foreign and domestic commerce. Full powered diesel engine vessels of over 2000 gross tons increased from 107, June 30, 1920, to 145 on June 30, 1921. While the gain in steam tonnage, exclusive of motor ships was not quite 9 per cent in the year ending last June 30, ocean going motor ship tonnage increased 50 per cent. The United Kingdom leads with 34 ships of over 2000 gross tons each, aggregating 217,000 tons, while the United States is fourth with 28 vessels totaling 86,000 tons. In addition to the large full powered ships there were 553 small diesel or semidiesel engine vessels aggregating 210,118 tons gross. Of this number 59 were American vessels totaling 27,521 gross tons. The increase in sailing vessels equipped with diesel or semidiesel engines has also been rapid. There were 45 ships of 13,000 tons gross, June 30, 1915, and 777 of 342,530 tons June 30, 1921. The United States leads in this kind of tonnage as it does in sailing vessels and owns 61 ships of 60,103 gross tons. The complete list of vessels, full powered and auxiliary, June 30, 1921, amounted to 1478 of 1,244,418 gross tons.

# Editorial

## Big Shipyards Hit by Navy Cut

FAVORABLE decision on the 10-year holiday in the construction of capital fighting ships is one result of the Washington conference assured from the day of its suggestion. The plans for preparedness, so tremendously popular during the war period, have sunk to such a level that not only is the question of universal military training forgotten but naval strength also must be cut. The swing in public sentiment throughout the world is so strong that even England with her centuries old tradition of the most powerful navy in the world, has gladly admitted the United States to a basis of equality.

Protests against reduction in naval strength have been extremely rare and no American shipbuilder has been found among the ranks of those opposed to the disarmament program. This fact is deserving of attention.

In practically all cases, even including the steelmakers, stoppage of naval orders is little more than an abstract policy. For several of the largest American shipyards, this curtailment means the direct loss of a big proportion of their business. In other pages of this issue, analyses are presented of the effects of the Hughes program on American shipyards and upon American shipping. A specially prepared chart shows that in the years before the war, navy orders represented one-third of the business of three big eastern shipyards. In other words, for every two tons of commercial shipping which they built, they constructed one ton for the navy department. In addition, this work had even greater value since it could be carried on at a time when private shipping was depressed.

American shipping also is directly concerned. Elimination of big capital ships immediately places a premium for war value on the merchant marine. Fast liners for auxiliary cruiser service and for transporting troops and supplies, as well as a well balanced fleet of large freighters, assume a decisive importance in naval operations as soon as the actual fighting ships are curtailed in number.

## Another Big Stick Full of Sawdust

DEVELOPMENTS in regard to the provisions of the Jones law, although the vitality of the law in this instance is of a negative quality by reason of the refusal of the executive branch of the government to act, is indicative of the low state of affairs in regard to much of American maritime statutes. Under the original law of 1916, the shipping board was authorized to control and regulate shipping agreements and conferences. Elsewhere in this issue is published an article pointing out how impotent the shipping board has been in this direction. The law grants the shipping board means enough to enforce the observance of shipping conferences which would give American vessels a fair chance at competing in the ocean carrying trade. But not until 1920 was any interest shown by the shipping board. Since then, shipping conferences in which the board had joined have been defied by French and Belgian shipping and are now being flaunted by the British. It is well enough to try suasion first with a competitor, but after this has failed it is time that the board exercised its arbitrary powers under the law and took a firm stand to compel observance of the fair rules of competition, so that American ships can live.

## President Faces Hard Problem

PRESIDENT Harding believes in the American merchant marine with a sincerity rare among high Washington officials for many years past. Hardly one of the President's public utterances, even back in the days when he was in the Ohio state legislature, has failed to carry its word of encouragement to American shipping.

For this reason his present attitude toward marine legislation is respected for its obvious sincerity even though his decisions are disappointing to many. The country has the President's promise that within a few weeks he will present before congress in a special message his solution of the commercial shipping situation. That solution, it is quite evident, will involve a subsidy in one form or another. The shipping board is understood to approve of this way out of the present muddle.

The President gives assurance that his solution will not bring any burden to the treasury greater than that which congress already has sanctioned through the enactment of the Jones law. This law called for preferential duties on goods imported in American ships, for preferential tonnage dues on American ships and lower rail rates on goods destined for export in American ships. Presumably the subsidy which is to be suggested will not call for more money than is represented by the sum of these three advantages which the Jones act sought to give.

The parallel is not exact since under the present unenforced law, congress sanctions the elimination of certain charges which, therefore, are never collected. The new legislation sought would be for the direct transfer of money from the treasury to the steamship companies.

Even though the contents of the President's promised plan are not known, it is already linked with the word subsidy. When it comes to legislative action, this close association is quite likely to defeat the plan without much regard to the actual merits.

# Improvement Forecast for Yards

## Ship Purchases Reveal Bottom Reached—More Repair Work Offered as Vessels Return to Service

ONLY 54 steel vessels of 399,767 tons were building or under contract for private owners in American yards Nov. 1, according to the American Bureau of Shipping. Stevenson Taylor, of the American bureau, declared only two new ships were submitted to the bureau for classification so far this year. Similarly, reports from England are just as pessimistic. Not a new contract has been let this year at Wallsend on the Tyne, and a ship under construction in that important center has been sold for one-half her cost of construction.

But it is wrong to accept these reports without interpretation. It is believed generally by shipping experts that this is the lowest ebb to which the shipbuilding industry can fall. Shipowners are buying in the bargains that are now offered on the market and that is the first indication of an upward trend in the price of tonnage. Even the shipping board has decided not to sell its ships until better prices are obtainable. Instead of disposing of the wooden fleet at sacrifice figures, it is now thought that these uneconomical vessels will be salvaged thereby removing a small portion of the tonnage from the market. Also Chairman Lasker of the board has declared that probably not over 5,000,000 tons of ships owned by the shipping board are adequate for successful commercial enterprises.

The cry of overtonnage is being understood and at last shipping men are able to judge as to what is the amount of the excess tonnage. The next thing will be for them to begin their plan to have vessels built designed better to meet particular trade requirements. While there is a great scarcity of work ordinarily recognized as seaworthy, there is a growing demand for small craft and specialized craft. Both New York and Philadelphia are building fireboats. New York is also expecting soon to contract for three new electrically driven ferry boats. There are also in design a few towboats, several barges and a small supply boat, contracts for which will be let early in the year.

By no means are the old established American yards without work. Take the case of the Merchant Shipbuilding Corp., which might be said to be representative. The 10,000-ton tanker SAMUEL Q. BROWN built by this yard for the Tidewater Oil Co. has sailed. The 11,000-ton motor freighter CALIFORNIAN, built for the American-Hawaiian line, was launched recently and her sister ship, the MISSOURIAN was launched a little later. The colliers FRANKLIN and FAIRMONT, operated by the United American lines, are undergoing extensive repairs at this yard.

With the increase in traffic, many of the privately owned vessels which were tied up during the slump are now being brought out and prepared for use. These all must undergo more or less repairs. The WALTER D. MUNSON is a case in point. The Standard Oil Co. is having a number of its tankers repaired, and the Clyde Steamship Co. has let considerable contract work. The Foreign Transport & Mercantile Co. is getting three of its vessels ready for service.

But, of course, the largest repair job now in sight is the reconditioning of the LEVIATHAN.

# What Pacific Shipyards Are Doing

AT A cost of approximately $100,000 Todd Dry Docks, Inc., Seattle has completed a contract for altering the former wooden steamer WHATCOM which has been converted into an express ferry and renamed CITY OF BREMERTON. The CITY OF BREMERTON will be operated between Seattle and the Puget Sound navy yard by the navy yard route. She is especially equipped for freighting automobiles, 60 of which as well as 1200 passengers can be handled on each trip. The work of the Seattle shipyard consisted of completely overhauling the vessel, altering the upper works and placing the craft in first class condition. The vessel has excellent speed as she covers the 16-mile run in 55 minutes. Elevators are provided for raising automobiles so that they can be handled at any stage of the tide. Increasing auto travel to the Olympic peninsula by way of Bremerton furnishes the need for this new service. Instead of building a new ferry, as originally intended, the WHATCOM was rebuilt and at a recent trial the vessel demonstrated her adaptability in every respect.

Completion of the wooden shipbuilding program at Victoria, B. C., will be undertaken by the Dominion government according to recent decision. Originally the Victoria Shipowners, Ltd., began a program of four wood sailing vessels under an agreement between private capital and the government. Financial difficulties arose and work was suspended months ago, two vessels almost ready for launching having since lain on the ways. The department of marine and fisheries will call for bids for finishing the uncompleted craft.

### Sued for Settlement

Nine suits have been filed at Olympia, Wash., against the Emergency Fleet corporation for supplies and materials furnished for the Sloan shipyards in 1918 and 1919. It is claimed that the shipping board cancelled all contracts on government vessels being constructed at the Sloan yards on March 16, 1919 and the suits request a settlement for supplies ordered for these hulls.

The Kilbourne & Clarke Mfg. Co. will soon be established in a new factory now under construction at Seattle, following sale recently of the firms former plant to the Westinghouse interests. Kilbourne & Clarke during the war held large contracts for wireless and other electric equipment but cancellation of war orders caused a temporary shutdown. However, the company will continue to manufacture all kinds of electric material having recently closed an order for 5000 telephone sets.

The Red Salmon Packers association is constructing a floating cannery at Anacortes, Wash. This vessel will be of wood, 75 by 26 feet in dimensions, and equipped with a 60 horsepower engine. The vessel will have all the necessary cannery machinery aboard, as well as accommodations for crew, and will follow the run of salmon in Alaskan waters.

The Norway-Pacific Construction & Dry Dock Co.'s property at Everett, Wash., under judgment of the superior court, was sold at public auction on Dec. 3. Under the court's ruling, the land reverts to the original owners and liens are granted to those who furnished supplies and materials. This yard was completed about the time the war closed and succeeding financial troubles prevented its executing a number of

contracts offered. Consequently no work has ever been done at this plant.

The Seattle Shipbuilding & Drydock Co., of which David Rodgers, formerly superintendent for Skinner & Eddy, is president, has completed a $15,000 contract on the steel steamer STARR. This vessel was formerly engaged in halibut fishing out of Seattle but has been idle for several months. Her owners have been awarded a government mail contract between Seward and the western Aleutian and Bristol bay ports. The contract runs for four years at $78,000 per annum. The STARR has had passenger accommodations installed and has been completely overhauled for the stormy route to which she has been assigned.

That the Pacific Steamship Co. is planning the addition of several vessels to its fleet is an open secret in north Pacific shipping circles but officials of the company have not yet worked out their plans. It is believed that two fast steel steamships will be built for the Puget Sound-California route. That the company is willing to dispose of some of its present fleet is indicated by the recent sale of the steamship CITY OF SEATTLE which was bought by C. L. Dimon, New York. The CITY OF SEATTLE, which for years has operated between Seattle and southeast Alaska, will hereafter run from Florida to ports in Cuba.

Three 8-hour shifts are at present employed on the Ballantyne pier at Vancouver, B. C., and work on the substructure is progressing rapidly. The improvement will cost about $5,000,000 and all the work is being done by the Dominion government.

The United Engineering Works, San Francisco, has received the contract for overhauling and rebuilding the Matson steamer LURLINE on a bid of $298,300. The vessel is being reconditioned. Her passenger accommodations will be enlarged to fit her for regular service between Seattle and ports in the Hawaiian islands.

The steel steamer CANADIAN FREIGHTER built at the Coughlan yards, Vancouver, B C., for the Canadian government merchant marine fleet, recently completed successful trials and has been placed in commission.

Shipbuilding at Prince Rupert, B. C., was recently completed with the delivery of the steel freighter CANADIAN BRITISHER after successful trials. The Wallace Shipbuilding Co., which took over the contracts at Prince Rupert, has withdrawn from that plant which has reverted to the Canadian national railway board.

Dominion officials have announced that increased drydock charges at British Columbia ports have been cancelled by the government for the next six months to enable British Columbia firms to meet the competition of American yards. This action is expected to assist in bringing additional work to plants on the British side. During the next half year, the entire question of docking charges will be surveyed and a permanent policy adopted.

Work on the federal government drydock extension at Esquimalt, near Victoria, B. C., will be prosecuted without delay according to government officials. As soon as the cofferdam is finished, the improvements will be carried on as quickly as possible.

Reports from Vancouver, B. C., state that an order in council has been passed granting a subsidy to J. J. Coughlan and the Wallace shipyards for the construction of a floating drydock. It is stated that work will start as soon as official notification is received from Ottawa confirming the subsidy. Each section will have five pontoons, each pontoon being 44 feet by 16 feet in depth, constructed entirely of wood. The size of the dock can be increased at any time by adding more sections. The frames will be of heavy Howe trusses fitted every 3 feet. The material to be used will include 5,000,000 feet of Douglas fir and 2,500 tons of steel. It is planned to have the dock in operation in 18 months.

---

The superdreadnaught MARYLAND, most powerful battleship of the United States navy, completed successful sea trials in November. Designed to make 21 knots, she ran at a maximum speed of 22.5 knots and her turbine generators developed a shaft horsepower of better than 36,000, although designed for but 28,000 horsepower. On the first day of the tests off the coast of Maine, the MARYLAND after three hours at 17 knots, three hours at 19 knots and three hours at 21 knots, was sent at full speed ahead and for six hours developed a speed of 22.5 knots, something that no other battleship has ever done. She came well within all her oil and water rates. The General Electric Co., Schenectady, N. Y., equipped her with electric drive. She will join the Pacific fleet.

---

The Southern Pacific Co. has protested that section of the interstate commerce act which prevents railroad-owned vessels which enter passenger or freight competition from passing through the Panama canal with cargoes. According to officials of the Southern Pacific, this is a restriction on Pacific coast shipbuilding.

## Says Shipbuilders Abroad Are Optimistic

Robert Haig, vice president of the Sun Shipbuilding Co., Chester, Pa., who recently returned from an extensive tour of England, Germany, Sweden and Norway, his third trip to Europe within a year, addressed the monthly meeting of the Delaware river section of the Atlantic Coast Shipbuilders' association, at the Bellevue-Stratford hotel in Philadelphia recently.

Mr. Haig made a careful study of conditions affecting the shipbuilding and engineering industries abroad. He said:

"The attitude of the typical foreign ship owner was expressed by one man in this way. He said that shipping was far from being in an unsound condition and although he had an excess of tonnage on hand, it did not overbalance what he would have acquired under normal conditions, had business continued without the interruptions caused by the ravages of the war.

"He pointed out the crux of the matter is that the purchasing capacity of the individual trader had practically been destroyed throughout the larger part of Europe, and until the merchant is able to revive his business and establish credits sufficiently elastic to carry on the world's industry, slow progress will be made toward general recovery in the shipping business. The same opinion was voiced from various quarters in Germany, Norway and Sweden."

Mr. Haig referred to the conditions in Sweden and Norway in regard to foreign exchange. Swedish exchange in England he said is above par, while in America it is nearly so, whereas Norwegian exchange is really about 50 per cent below its full value of 1914. As Sweden and Norway are usually one with relation to foreign exchange, the situation is remarkable, he said.

"When one visits Germany, it is noticeable that there is practically no unemployment," he said. "The people seem to be well fed, and war talk and industrial discontent seem to have subsided to a remarkable extent. Shipbuilders in Germany claim to be well employed with orders running until the end of 1923, but the exchange situation is causing them some uneasiness."

In England, raw materials, such as steel and coal, have come down considerably and further reductions are looked for in steel and wages, Mr. Haig said.

# Late Flashes On Marine Disasters

## Brief Summaries of Recent Maritime Casualties— A Record of Collisions, Wrecks, Fires and Losses

| Name of Vessel | Date | Nature | Place | Damage Resulting |
|---|---|---|---|---|
| Admiral Rodman | Oct. 28 | Fire | Seattle | Considerable |
| Admiral Farragut | Nov. 3 | Disabled | Seattle | Pump burst |
| Apache | Nov. 5 | Collision | N. of Fenwick Isl. lightship | Not stated |
| Ariceen | Nov. 2 | Ashore | Twillingate | Total loss |
| Alfred Ock Hedley | Oct. 18 | Heavy weather | At sea | Deck damaged |
| Adventuress | Nov. 23 | Collision | San Francisco bar | Slight |
| Andevalo | Nov. 13 | Heavy sea | Cape Race | Lost sails |
| Amcross | Nov. 17 | Struck object | At sea | Rudder damaged |
| Avon Queen | Nov. 13 | Heavy storm | Off West Point | Windlass damaged |
| Alaskan | Nov. 23 | Collision | Boston | Broke stanchions. |
| Almeda | Nov. 19 | Fire | Off Virginia Capes | Not stated |
| Aragon | Nov. 17 | Ashore | Lake Ontario | Abandoned |
| Admiral Evans | Nov. 12 | Struck wharves | San Francisco | Undamaged |
| Argyllshire | Sept. 8 | Heavy sea | At sea | To deck fittings |
| Albert Stella | Nov. 29 | Grounded | Majorca | Not stated |
| Bankdale | Nov. 3 | Fire | At sea | To cargo |
| Buckeye State | Nov. 2 | Disabled | San Francisco | Boil. trouble |
| Bur | Nov. 2 | Disabled | Norfolk | Machy. damaged |
| Belridge | Oct. 20 | Disabled | Buenos Aires | Lost prop. blades |
| Bretagne | Oct. 20 | Grounded | River Gironde | Not stated |
| Bristol City | Nov. 5 | Fire | New York | Slight |
| Bankdale | Nov. 4 | Fire | At sea | Cargo damaged |
| Bagdad | Nov. 14 | Disabled | Jacksonville | Bottom up |
| Bollweiler | Oct. 26 | Heavy weather | Hamburg | Deck damaged |
| Bore | Oct. 25 | Disabled | Kalmar | Leaking |
| Bredow | Oct. 25 | Ashore | Greifswald | Not stated |
| Buda | Oct. 27 | Disabled | Barcelona | Steerer diasbled |
| Bessie S. | Nov. 7 | Ashore | Indian Island | Not stated |
| Baracaldo | Oct. 19 | Broke prop. shaft, leak | N. of Larache | Sank |
| Beltana | Oct. 24 | Fire | London | To ventilating pipes |
| Blaamyra | Oct. 23 | Gale, collision | Bremen | Undamaged |
| Brantford | Oct. 26 | Ashore | Welland Canal | Leaking |
| Bertie M. Hanlon | Nov. 22 | Disabled | Out of Albion | Boil. trouble |
| Bradford | Nov. 29 | Ashore | Off Solomon's Isl. | Not stated |
| Carrier Dove | Nov. 3 | Stranded | Molokai Islands | Total loss |
| Coquitt | Nov. 4 | Disabled | Bermuda | Feed pump trouble |
| Clintonia | Nov. 7 | Not stated | At sea | Abandoned |
| Clarence B. | Oct. 31 | Hurricane | Rilleys Island | Abandoned |
| Celestial San F. | Nov. 2 | Disabled | Near River Clyde | Rudder lost |
| Casco | Nov. 5 | Storm | At sea | Steerer jammed |
| Cantal | Oct. 26 | Collision | Wapping | Not stated |
| Clyne Rock | Oct. 27 | Collision | Lower Elbe | Bow stovein |
| C. F. Moll | Nov. 10 | Ashore | Sturgeon Point | Plates damaged |
| Cold Harbor | Nov. 8 | Struck log | Puget Sound | Undamaged |
| Cordova | Nov. 9 | Disabled | Seattle | Eng. trouble |
| Collingsworth | Nov. 9 | Disabled | Baltimore | Turbine eng. trouble |
| Caloria | Nov. 23 | Grounded | Above Cave Point | Not stated |
| Captaine Damaine | Nov. 17 | Disabled | Halifax | Eng. disabled |
| Canadian Farmer | Nov. 15 | Grounded | Nanaimo harbor | Not stated |
| Cold Harbor | Nov. 13 | Grounded | Grays Harbor | Not stated |
| Cavehill | Oct. 22 | Sprang leak | N of Spurn Lightship | Sank |
| Collamer | Oct. 22 | Fire | Out of New York | Slight |
| Colonel De Villebois-Mareuil | Oct. 24 | Lost anchors | Sligo | Undamaged |
| Christopher | Nov. 17 | Grounded | Detroit river | Undamaged |
| Canadian | Dec. 1 | Disabled | Jacksonville | Crank shaft cracked |
| Canadian Challenger | Nov. 28 | Disabled | Halifax | Eng. trouble |
| Chemung | Dec. 3 | Disabled | Newport, R. I. | Sank |
| Cambria | Dec. 3 | Collision | Irish Sea | Undamaged |
| Caddo | Dec. 3 | Ashore | Near Barnegat | Not stated |
| Darden | Nov. 4 | Disabled | At sea | Machy. disabled |
| Dryden | Nov. 2 | Collision | Rotterdam | Below water line |
| Donna Lane | Nov. 9 | Grounded | Canal near Lake Union | Jettis. cargo |
| Deuel | Nov. 23 | Disabled | North Hinder Lightship | Broke shaft |
| David McKelvey | Nov. 18 | Collision | Off Cape Cod | Not stated |
| Dolpin | Nov. 18 | Disabled | Norfolk | Prop. broke |
| Derbyline | Nov. 10 | Grounded | Above Mobile | Not stated |
| Dove | Nov. 15 | Not stated | Fogo Island Point | Total loss |
| Dunolly | Oct. 18 | Disabled | Las Palmas | Forepeak leak. |
| De Long | Dec. 1 | Grounded | S. of San Francisco harbor | Not stated |
| Daisy | Nov. 27 | Disabled | San Francisco | Prop. blade broke |
| Eastern Soldier | Oct. 31 | Adrift | Off Lands End | Piston split |
| E. P. Theriase | Nov. 5 | Stranded | Race Point | Not stated |
| Earl Grey | Nov. 2 | Storm | Bonavista Bay | Total loss |
| Elkhorn | Nov. 2 | Disabled | Mobile | Eng. trouble |
| Elsie K. | Nov. 14 | In tow | Jamaica Bay | Eng. trouble |
| Emma | Oct. 25 | Ashore | Oland | Not stated |
| Eugenia | Oct. 22 | Sprang leak | SSE of Punta Imperatore | Sank |
| Ellen Little | Nov. 8 | Disabled | Norfolk | Lost sails |
| Elizabeth Ann Slater | Oct. 22 | Disabled | Off Nab Lightship | Lost prop. |
| Elmdale | Nov. 21 | Collision | Macoris | Not stated |
| Edwin N. Ohl | Nov. 1 | Grounded | Livingstone Channel | Shoe damaged |
| Elinor | Nov. 28 | Dragged anchor, ashore | Cape Flattery | Not stated |
| F. D. Asche | Nov. 2 | Stranded | Bahama Islands | Not stated |
| Frieda | Nov. 6 | Disabled | Philadelphia | Prop. broke |
| Fulton | Nov. 7 | Ashore | Fogo | Not stated |
| Fukui Maru | Oct. 27 | Not stated | At sea | Abandoned |
| Frederick | Oct. 31 | Fire | Norfolk | Heavy |
| Ferm | Nov. 21 | Ashore | St. Shotts | May be total loss |
| Fukuyu Maru | Nov. 15 | Collision | New Orleans | Not stated |
| Gladys M. Taylor | Nov. 5 | Grounded | Half Moon Shoal | Jettis. cargo |
| General Church | Nov. 20 | Grounded | Piraeus | Jettis. cargo |
| Galatea | Oct. 24 | Fire | Alexandria | To cargo & hull |
| Gyp | Nov. 19 | Ashore | St. Etienne Bay | Not stated |
| Glenlivet | Nov. 1 | On sandbar | Toledo | Not stated |
| George King | Nov. 16 | Grounded | Niagara channel | Undamaged |
| Glengarnock | Nov. 28 | Disabled | St. Johns, NF | Eng. trouble |
| Gardiner M. Deering | Nov. 30 | Disabled | At sea | Rudder disabled |
| Gresham | Nov. 29 | Disabled | New York | Eng. trouble |
| Henry F. Kreger | Oct. 26 | Wrecked | Pollock Rip | Total loss |
| H. F. Hillman | Nov. 8 | Grounded | San Pedro | Not stated |
| Halcyon | Nov. 14 | Disabled | Jacksonville | Leaking & rudder gone |
| Hartford | Nov. 18 | Ashore | Spectacle Island | Not stated |
| Haraldshaug | Oct. 24 | Struck dock | Grimsby | Not stated |
| Haugland | Nov. 26 | Shipped water | Christiansand | Water in hold |
| Homer Smith | Nov. 18 | Grounded | Lake St. Clair | Jettis. cargo |
| Hydrus | Nov. 29 | Disabled | Milwaukee | Wheel damaged |
| Huftero | Nov. 30 | Ashore | Zuiderhank Ground | Not stated |
| Isabel C. Harriss | Nov. 4 | Disabled | At sea | Leaking |
| Jennie V. Merriam | Nov. 7 | Fire | Bay of Fundy | Sank |
| James Jones | Nov. 7 | Ashore | Seldom | Total loss |
| John F. Hylan | Nov. 14 | Disabled | Near Jamaica Bay | Eng. trouble |
| James J. Murray | Nov. 10 | Capsized | Governor's Island | Not stated |
| Joe | Oct. 26 | Collision | Wapping | Sank |
| Joseph Block | Oct. 29 | Ashore | Mission Point | Leaking |
| June | Nov. 29 | Fire | At sea | Abandoned |
| Kaisho Maru | Nov. 10 | Listed | Tacoma | Jettis. cargo |
| K. I. Luckenbach | Nov. 9 | Disabled | San Pedro | Boil. trouble |
| Kenwood | Nov. 24 | Disabled | Hampton Roads | Leaking |
| Kennecott | Nov. 10 | Collision | San Francisco | Not stated |
| Koun Maru | Nov. 29 | Foundered | Off Cape Flattery | Not stated |
| Kinsman | Dec. 1 | Disabled | At sea | Water in hold |
| Leonora Silveria | Nov. 3 | Stranded | Peaked Hill | Not stated |
| Londonier | Oct. 22 | Fire | At sea | To cargo |
| Livingston Roe | Nov. 14 | Disabled | New York | Steerer disabled |
| L. D. Leopold | Nov. 9 | Collision | Philadelphia | Not stated |
| Lake Elsah | Nov. 24 | Disabled | Jacksonville | Prop. damaged |
| Lucy R. | Nov. 15 | Ashore | Matinicus | On beam ends |
| Luna De Miel | Nov. 18 | Disabled | Norfolk | Not stated |
| Laguna | Nov. 19 | Ashore | Banes | Jettis. cargo |
| L. R. Davidson | Nov. 10 | Struck shoal | Seneca shoal | Leaking |
| Lady of Gaspe | Nov. 10 | Ran ashore | Halifax Harbor | Total loss |
| M. P. Cashin | Nov. 2 | Ashore | Twillingate | Not stated |
| Manatee | Nov. 1 | Fire | At sea | Not stated |
| Manatee | Nov. 3 | Disabled | At sea | Steerer disabled |
| M. M. Davis | Nov. 4 | Disabled | Norfolk | Shaft broke |
| Morristown | Oct. 21 | Severe storm | At sea | To superstructure |
| Meteor | Nov. 10 | Disabled | Eagle Harbor | Leaking |
| Morro Castle | Nov. 20 | Disabled | At sea | Broke cylinder |
| Martha | Nov. 24 | Disabled | Off Humboldt | Machy. dis. |

# Late Flashes On Marine Disasters

## Brief Summaries of Recent Maritime Casualties— A Record of Collisions, Wrecks, Fires and Losses

| Name of Vessel | Date | Nature | Place | Damage Resulting |
|---|---|---|---|---|
| Melbourne P. Smith | Nov. 23 | Heavy weather | Barbados | Sails damaged |
| Maria Luisa | Nov. 16 | Floundered | Off Zambales coast | Sank |
| Maude S. | Nov. 21 | Wrecked | Deer Island | Broke in tow |
| Matagorda | Nov. 15 | Collision | Galveston | Not stated |
| Mansanillo | Nov. 19 | Grounded | Cayo Frances | Slight |
| Marguerite | Nov. 26 | On ledges | Harrington Cove | Total loss |
| Massick | Nov. 21 | Struck wreck | Off Dragor | Not stated |
| Maryland | Nov. 15 | Collision | New Orleans | Sank |
| Monana | Nov. 27 | Grounded | Gothenburg harbor | Not stated |
| Medric | Nov. 29 | Heavy weather | Maine coast | Leaking |
| Nordica | Oct. 28 | Ashore | Corsica | Not stated |
| Nils Gura | Nov. 2 | Sank | West Jutland | Not stated |
| Nika | Nov. 13 | Disabled | Delaware breakwater | Boil. trouble |
| Nola | Nov. 20 | Collision | New Orleans | Plates damaged |
| Nevis | Nov. 20 | Fire | Halifax | Not stated |
| Nicolaas | Oct. 23 | Collision | At sea | Seriously damaged |
| Nordhav | Nov. 27 | Tank leaking | St. Johns, N. F. | Water in hold |
| Nordamerika | Nov. 25 | Ashore | Princess Bay | Not stated |
| Nevis | Nov. 17 | Not stated | Majorca | Total wreck |
| Nictheroy | Dec. 1 | Disabled | London | Tank leak. |
| Nina Lee | Nov. 29 | Not stated | At sea | Total loss |
| North American | Dec. 1 | Disabled | Jacksonville | Crankshaft cracked |
| Oakfield | Oct. 12 | Struck dock wall | Middlebury | Not stated |
| Phoeby Crossby | Oct. 26 | Ashore | Georgetown harbor | Total loss |
| Pat Harrison | Nov. 3 | Collision | Mobile | Slight |
| Peter McIntyre | Nov. 8 | Struck wreck | Tangler Sound | Disabled |
| Pallas | Nov. 9 | Disabled | N. of Anacapa Isl. | Broke line shaft |
| Providence | Nov. 13 | Ashore | Cape Cod Canal | Leak. badly |
| Philadelphia | Nov. 9 | Collision | Philadelphia | Considerable |
| Parisiana | Nov. 11 | Collision | River Mersey | Slight |
| Prentiss | Nov. 23 | Collision | San Francisco bar | Undamaged |
| Peterton | Oct. 20 | Fire | At sea | To coal |
| Panhandle State | Nov. 26 | Fire | Off New York | Slight |
| Portland | Nov. 22 | Ashore | Weaver's Point | Not stated |
| Paipoonge | Dec. 1 | Disabled | Halifax | Machy. trouble |
| Perry Seltzer | Nov. 23 | Slipped on blocks | Providence, R. I. | Strained |
| Queen Alexandra | Oct. 17 | Ashore | Gulf of Suez | Not stated |
| Queen Margaret | Nov. 9 | Fire | Astoria | Slight |
| Rose City | Nov. 3 | Struck pier | San Francisco | Plates damaged |
| Rheinfels | Sept. 19 | Touched bottom | Suez Canal | Undamaged |
| Roma | Oct. 15 | Collision | At sea | Not stated |
| Robin Adair | Nov. 9 | Fire | San Francisco | Slight |
| Rambler | Nov. 13 | Sprang leak | Off Tampico | Sank |
| Rosabelle | Oct. 30 | Wrecked | Lake Michigan | Total loss |
| Repeat | Dec. 1 | Disabled | Honolulu | Leak. & rudder broke |
| Spectator | Nov. 3 | Disabled | San Francisco | Eng. trouble |
| San Diego | Nov. 2 | Grounded | Jeffersons Head's | Not stated |
| Singleton | Nov. 5 | Collision | N. of Fenwick Isl. | Abandoned lightship |
| Steadfast | Nov. 6 | Disabled | Off North Foreland | Steerer disabled |
| Standard Cull | Nov. 2 | Ashore | Kings Cove | Total loss |
| Santa Theresa | | Collision | Off Ambrose channel | To plates & bow |
| Seahorse | Nov. 1 | Disabled | San Francisco | Hole in bow |
| San Francisco | Nov. 12 | Fire | NW of Azores | Not stated |
| Saginaw | Nov. 14 | Grounded | Near Eureka | Undamaged |
| Say When | Nov. 13 | Disabled | New York | Boil. trouble |
| Sinaloa | Nov. 11 | Disabled | San Francisco | Tanks disabled |
| Sehome | Nov. 8 | Waterlogged | Jacksonville | Beyond repair |
| Stormes | Nov. 7 | Leaking | Bermuda | Not stated |
| Shinyo Maru | Nov. 4 | Fire | San Francisco | Undamaged |
| Sintram | Nov. 15 | Grounded | Nantucket Sound | Not stated |
| Sausalito | Nov. 10 | Collision | San Francisco | Damagedaft |
| Sintram | Nov. 18 | Collision | Off Cape Cod | Sank |
| Springfield | Nov. 6 | Disabled | At sea | Lost prop. blade |
| Sarnia | Nov. 15 | Fire | Port Arthur | Destroyed |
| Samuel Mather | Nov. 26 | On shoal | Round Island | Undamaged |
| Saikai Maru | Nov. 30 | Disabled | Off Astoria | Not stated |
| Simon F. Tolmie | Dec. 1 | Disabled | Off Neah Bay | Steerer dis. |
| Silvanus | Nov. 27 | Storm | SE of Ambrose channel | Sank |
| Stanley Joseph | Nov. 26 | Gale | At sea | Abandoned |
| Seminole | Dec. 1 | Disabled | Bermuda | Machy. defective |
| Silver Star | Nov. 23 | Ashore | Harbor Grace | Total loss |
| Simaloer | Nov. 26 | Disabled | Yokohama | Steerer disabled |
| Senator | Nov. 28 | Disabled | At sea | Piston rod broke |
| Triton | Oct. 1 | Grounded | Gosvarosen | Sank |
| Thomas Crowley | Nov. 2 | Ashore | Near Point Conception, Cal. | Not stated |
| Tern | Oct. 26 | Collision | Wapping | Sank |
| Turcoman | Nov. 11 | Collision | River Mersey | Slight |
| Thomas Crowley | Nov. 18 | Disabled | San Pedro | Pumps broke |
| Thomas P. Beal | Nov. 23 | Collision | Boston | To plate |
| Texan | Nov. 10 | Collision | San Francisco | Plate dented |
| Tanamo | Nov. | Fire | New York | Sank |
| Therese Marie | Oct. 22 | Leaking | Vigo | Not stated |
| Tulsa | Nov. 14 | Disabled | Halifax | Machy. trouble |
| Tuxpanoil | Nov. 15 | Leaking | E. of Nantucket Lightship | Not stated |
| Tonesit | Nov. 28 | Disabled | St. Michaels | Boil. trouble |
| Thomas R. Wooley | Nov. 29 | Ashore | Off Montauk Point | May be total loss |
| Vestalia | Nov. 2 | Fire | St. Michaels | To coal in bunkers |
| Violet Currie | Nov. 4 | Ashore | Twillingate | Not stated |
| Veendijk | Nov. 19 | Fire | Batavia | To bunker coal |
| Virginia Date | Nov. 17 | Leaking | Mobile | Not stated |
| Veronica | Oct. 24 | Struck dock | Grimsby | Slight |
| Valley Forge | Nov. 30 | Disabled | Portland, Me. | Prop. trouble |
| Vittoria | Nov. 30 | Fire | St. Vincent | To bunker coal |
| West Lewark | Nov. 30 | Grounded | Columbia River | Not stated |
| West O'Rowa | Nov. 2 | Fog | Tacoma | Grounded |
| Willesden | Sept. 24 | Ventilator carried away | At sea | Water in hold |
| West Keats | Nov. 1 | Disabled | Astoria | Steerer trouble |
| Wabana | Oct. 28 | Disabled | Sydney | Steerer disabled |
| West Carnifax | Nov. 13 | Disabled | Baltimore | Steerer trouble |
| Wurttemberg | Nov. 13 | Disabled | Cuxhaven | Eng. trouble |
| Wupper | Oct. 27 | Collision | Lower Elbe | Not stated |
| W. H. Molher | Nov. 8 | Fire | Baltimore | Destroyed |
| Waukau | Nov. 19 | Disabled | Bermuda | Boils. leak |
| W. J. Patterson | Nov. 15 | Collision | Galveston | To rails & stanchions. |
| Worden | Nov. 9 | Disabled | Galveston | Prop. trouble |
| Worcester | Nov. 27 | Ashore | Monmouth Beach | Not stated |
| W. H. Wolf | Nov. 1 | Hit dock | Fort William | To rudder stock |
| Yaque | Nov. 21 | Collision | Macoris | Considerable |
| Zwulon | Oct. 15 | Collision | At sea | Sank |

## Italian Ships at Panama

In the fiscal year 1921 all of the Italian vessels using the Panama canal belonged to two lines maintaining regular services between Genoa and Valparaiso, calling at numerous wayports in the Mediterranean, the Caribbean and on the west coast of South America. These were the Navigazione Italiana a Vapore, (La Veloce), and the Societa Nazionale di Navigazione. The former had 5 steamers southbound and 5 northbound, and the latter 8 southbound and 7 northbound. The total southbound cargo carried through the canal by these two lines was 14,925 tons, and the total northbound cargo, 33,063 tons.

Very few Italian vessels used the Panama canal prior to the fiscal year 1920, as the following table shows:

| Fiscal year. | Atlantic to Pacific | Pacific to Atlantic | Total. |
|---|---|---|---|
| 1915 | 1 | 1 | 2 |
| 1916 | 1 | .. | 1 |
| 1917 | 1 | 1 | 2 |
| 1918 | 2 | 2 | 4 |
| 1919 | .. | .. | .. |
| 1920 | 13 | 13 | 26 |
| 1921 | 13 | 12 | 25 |
| Totals | 31 | 29 | 60 |

# Marine Business Statistics Condensed

## Only One French Line Uses Canal Regularly

The volume of French shipping through the Panama canal has been subject to extreme fluctuations due to war and postwar conditions. The record of seven fiscal years from 1915 to 1921 is shown in the following table:

| Fiscal year. | Atlantic to Pacific | Pacific to Atlantic | Total |
|---|---|---|---|
| 1915 | 2 | 1 | 3 |
| 1916 | .. | 1 | 1 |
| 1917 | 4 | 5 | 9 |
| 1918 | 19 | 33 | 52 |
| 1919 | 29 | 75 | 104 |
| 1920 | 9 | 51 | 60 |
| 1921 | 26 | 18 | 44 |
| Totals | 89 | 184 | 273 |

The only French line with regular sailings through the canal in 1921 was the Compagnie Generale Transatlantique, which maintains a service between Havre, Antwerp, Hamburg, Bordeaux and ports on the west coast of South America. It put through 10 southbound and 9 northbound vessels. Other French shipping companies, according to the *Canal Record*, which contributed to the traffic were: Societe Generale d'Armement with 7 transits, Compagnie Francaise d'Armement d'Importation de Nitrate de Soude with 5, Societe Generale de Transports Maritimes a Vapeur with 4, French government with 4, and Societe Anonyme de Peche with 1.

During 1921 there were 10 vessels from Europe to South America with 10,193 tons of cargo, 2 from the United States to South America with 11,904 tons, 7 sailing ships in ballast and 3 steamers carrying 6485 tons of cargo from Europe to North America, and 2 tankers with 5571 tons of oil from the east coast to the west coast of Mexico. There were 13 vessels from South America to Europe with 82,394 tons, 1 from South America to the United States with 6120 tons, 2 from North America to Europe with 10,169 tons, and 2 tankers returning in ballast from west Mexico.

The total cargo from Atlantic to Pacific was 34,153 tons, and in the opposite direction 98,683 tons.

# Record of Traffic at American Ports

WHILE the traffic through the port of New York in November maintained a fair average to compare with the records set during the fall months, the business fell notably below the high record established in October. In November there was a more equal balance between entrances and clearances, although both were at least 10 per cent below what they were in the month before. The importance in the figures is recognized in the trend of traffic since last summer. The entrances during August were much larger than the clearances, indicating a general tieing up of ships. September an improvement was seen in the freight offering and more vessels cleared than entered, which was probably due to a quick rush away to take advantage of the freight offerings. In October the entrances and clearances fairly balanced each other, both running up the largest totals for the year. This balance in the entrances and clearances was maintained in November.

Freight passing through Philadelphia showed a gain during November but it was due to an increase in foreign ships using that port. Foreign ships were more than 50 per cent over the American ships. British vessels alone approximately equaled the American ships. And where 15 American ships or one-half the total American cleared the port during the month in ballast, only one British ship was forced to clear without cargo.

### New York

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 423 | 1,543,430 | 415 | 1,506,071 |
| October | 413 | 1,662,564 | 428 | 1,644,729 |
| September | 385 | 1,304,544 | 417 | 1,556,645 |
| August | 478 | 1,583,991 | 390 | 1,300,897 |
| July | 394 | 1,456,304 | 403 | 1,423,109 |
| June | 408 | 1,368,334 | 419 | 1,425,649 |
| May | 425 | 1,454,033 | 366 | 1,328,643 |
| April | 410 | 1,453,056 | 438 | 1,509,353 |
| March | 455 | 1,574,526 | 448 | 1,539,885 |
| February | 424 | 1,407,133 | 374 | 1,315,556 |
| January | 455 | 1,437,725 | 414 | 1,433,564 |
| December, 1920. | 516 | 1,732,485 | 518 | 1,802,929 |
| November | 495 | 1,741,786 | 482 | 1,691,683 |

### Philadelphia

(Including Chester, Wilmington and the whole Philadelphia port district)
(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 89 | 249,873 | 87 | 252,606 |
| October | 86 | 239,103 | 67 | 204,652 |
| September | 60 | 143,434 | 66 | 195,558 |
| August | 84 | 208,961 | 61 | 144,029 |
| July | 75 | 178,925 | 61 | 148,674 |
| June | 71 | 176,968 | 74 | 214,524 |
| May | 110 | 295,617 | 70 | 178,464 |
| April | 105 | 255,249 | 79 | 209,854 |
| March | 102 | 306,512 | 87 | 242,606 |
| February | 104 | 285,369 | 75 | 221,402 |
| January | 84 | 250,233 | 68 | 217,281 |
| December, 1920. | 116 | 340,133 | 112 | 235,821 |
| November | 126 | 338,562 | 123 | 350,385 |

### Norfolk and Newport News

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| October, 1921.. | 23 | 68,037 | 59 | 151,849 |
| September | 25 | 75,836 | 51 | 148,987 |
| August | 44 | 134,193 | 63 | 173,111 |
| July | 95 | 267,846 | 173 | 491,104 |
| June | 140 | 410,926 | 238 | 728,458 |
| May | 129 | 398,042 | 201 | 601,675 |
| April | 57 | 179,852 | 125 | 375,044 |
| March | 47 | 143,487 | 88 | 260,053 |
| February | 55 | 160,494 | 108 | 327,241 |
| January | 84 | 251,499 | 163 | 442,657 |
| December, 1920 | 151 | 367,936 | 202 | 505,690 |
| November | 155 | 376,515 | 244 | 559,128 |
| October | 216 | 509,154 | 305 | 722,121 |

### San Francisco

(Inclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 432 | 791,219 | 445 | 869,988 |
| October | 445 | 780,840 | 454 | 787,144 |
| September | 459 | 807,276 | 440 | 749,911 |
| August | 464 | 770,980 | 457 | 788,238 |
| July | 275 | 699,092 | 335 | 676,340 |
| June | 194 | 474,948 | 211 | 543,629 |
| May | 271 | 594,409 | 164 | 426,255 |
| April | 377 | 607,559 | 452 | 703,717 |
| March | 335 | 645,435 | 341 | 611,575 |
| February | 305 | 594,636 | 297 | 548,103 |
| January | 356 | 585,689 | 330 | 566,201 |
| December, 1920. | 388 | 606,666 | 359 | 561,188 |
| November | 393 | 640,474 | 399 | 633,274 |

### Baltimore

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 78 | 243,934 | 80 | 253,943 |
| October | 73 | 249,481 | 78 | 252,098 |
| September | 85 | 259,788 | 81 | 260,789 |
| August | 90 | 251,499 | 87 | 239,482 |
| July | 116 | 349,379 | 123 | 365,666 |
| June | 118 | 359,201 | 133 | 413,410 |
| May | 109 | 341,731 | 112 | 341,381 |
| April | 114 | 320,195 | 119 | 351,950 |
| March | 111 | 320,238 | 107 | 316,536 |
| February | 112 | 380,602 | 93 | 292,881 |
| January | 131 | 401,511 | 112 | 344,480 |
| | —To foreign ports direct— | | | |
| December, 1920 | 92 | 264,142 | 113 | 329,320 |
| November | 109 | 316,743 | 145 | 425,493 |

### Seattle

| Month | Deep sea arrivals No. ships | Net tonnage | Deep sea departures No. ships | Net tonnage |
|---|---|---|---|---|
| October, 1921.. | 163 | 431,637 | 157 | 443,447 |
| September | 168 | 434,912 | 150 | 387,151 |
| August | 202 | 519,467 | 192 | 517,253 |
| July | 158 | 450,050 | 159 | 436,884 |
| June | 100 | 331,505 | 110 | 341,278 |
| May | 106 | 299,777 | 99 | 282,583 |
| April | 143 | 339,192 | 163 | 370,070 |
| March | 149 | 372,824 | 144 | 369,568 |
| February | 103 | 295,144 | 101 | 272,136 |
| January | 131 | 312,072 | 134 | 344,877 |
| December, 1920. | 205 | 323,744 | 186 | 302,051 |
| November | 256 | 348,452 | 228 | 337,890 |
| October | 359 | 347,412 | 314 | 366,669 |

# Marine Business Statistics Condensed

## New Orleans

(Exclusive of domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| October, 1921 | 177 | 431,976 | 176 | 425,186 |
| September ... | 191 | 510,646 | 226 | 628,057 |
| August ..... | 210 | 478,941 | 194 | 482,43 |
| July ..... | 157 | 371,379 | 176 | 410,749 |
| June ..... | 172 | 440,527 | 195 | 479,495 |
| May ..... | 166 | 410,047 | 145 | 354,539 |
| April ..... | 205 | 515,287 | 210 | 530,283 |
| March ..... | 201 | 458,079 | 202 | 452,385 |
| February ... | 178 | 436,045 | 200 | 453,899 |
| January .... | 168 | 399,903 | 183 | 443,303 |
| Dec., 1920... | 202 | 520,346 | 212 | 507,810 |
| November .. | 185 | 428,650 | 173 | 451,553 |
| October .... | 181 | 416,966 | 228 | 545,352 |

## Boston

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 62 | 137,585 | 80 | 180,940 |
| October ..... | 99 | 229,800 | 67 | 158,695 |
| September ..... | 88 | 197,208 | 69 | 144,268 |
| August ..... | 100 | 280,687 | 63 | 102,032 |
| July ..... | 98 | 178,403 | 81 | 115,503 |
| June ..... | 138 | 211,667 | 100 | 119,945 |
| May ..... | 122 | 190,148 | 87 | 98,008 |
| April ..... | 101 | 217,080 | 71 | 133,952 |
| March ..... | 99 | 306,454 | 49 | 113,184 |
| February ..... | 74 | 260,502 | 45 | 119,847 |
| January ..... | 72 | 175,052 | 50 | 125,904 |
| December, 1920. | 66 | 178,656 | 51 | 128,439 |
| November ..... | 79 | 193,433 | 52 | 107,112 |

## Mobile

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 57 | 104,489 | 47 | 86,559 |
| October ..... | 64 | 124,089 | 60 | 122,949 |
| September ..... | 55 | 95,343 | 46 | 89,460 |
| August ..... | 57 | 108,936 | 48 | 83,486 |
| July ..... | 67 | 156,801 | 58 | 101,850 |
| June ..... | 53 | 101,592 | 51 | 92,800 |
| May ..... | 43 | 67,627 | 45 | 71,756 |
| April ..... | 96 | 249,996 | 76 | 150,776 |
| March ..... | 79 | 149,798 | 56 | 82,898 |
| February ..... | 58 | 105,040 | 47 | 89,647 |
| January ..... | 68 | 94,273 | 63 | 78,109 |
| December, 1920. | 97 | 147,575 | 74 | 122,293 |
| November ..... | 73 | 91,814 | 54 | 74,252 |

## Los Angeles

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| October, 1921.. | 68 | 124,682 | 76 | 123,267 |
| September .... | 54 | 128,611 | 45 | 119,275 |
| August ..... | 50 | 117,775 | 40 | 106,243 |
| July ..... | 45 | 144,913 | 34 | 101,581 |
| June ..... | 27 | 100,411 | 31 | 100,580 |
| May ..... | 35 | 98,885 | 26 | 77,036 |
| April ..... | 32 | 119,049 | 28 | 71,958 |
| March ..... | 39 | 99,455 | 33 | 94,380 |
| February ..... | 74 | 97,252 | 60 | 93,544 |
| January ..... | 60 | 111,882 | 86 | 64,844 |
| December, 1920. | 74 | 60,333 | 56 | 61,211 |
| November ..... | 69 | 89,143 | 79 | 91,763 |
| October ..... | 65 | 72,101 | 85 | 104,304 |

## Key West

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 70 | 79,586 | 67 | 78,618 |
| October ..... | 55 | 66,400 | 59 | 67,608 |
| September ..... | 62 | 77,229 | 70 | 101,948 |
| August ..... | 65 | 69,911 | 59 | 66,223 |
| July ..... | 85 | 89,901 | 86 | 87,449 |
| June ..... | 105 | 104,326 | 104 | 101,494 |
| May ..... | 100 | 104,326 | 104 | 103,571 |
| April ..... | 115 | 117,586 | 111 | 114,748 |
| March ..... | 112 | 107,736 | 108 | 107,083 |
| February ..... | 124 | 118,950 | 120 | 119,241 |
| January ..... | 128 | 146,679 | 127 | 142,474 |
| December, 1920. | 121 | 102,611 | 121 | 97,733 |
| November ..... | 103 | 90,374 | 98 | 82,126 |

## Portland, Me.

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921 | 24 | 37,712 | 12 | 16,794 |
| October ..... | 13 | 21,191 | 8 | 13,652 |
| September ..... | 10 | 15,345 | 12 | 26,224 |
| August ..... | 13 | 17,192 | 13 | 14,265 |
| July ..... | 13 | 15,195 | 11 | 9,597 |
| June ..... | 15 | 15,723 | 12 | 12,749 |
| May ..... | 4 | 8,324 | 10 | 8,885 |
| April ..... | 17 | 54,804 | 19 | 64,310 |
| March ..... | 24 | 75,529 | 25 | 80,107 |
| February ..... | 20 | 66,422 | 21 | 73,581 |
| January ..... | 34 | 93,933 | 28 | 86,559 |
| December, 1920. | 36 | 96,281 | 31 | 107,567 |
| November ..... | 37 | 61,804 | 16 | 23,282 |

## Savannah

(Exclusive of Domestic)

| Month | —Entrances— No. Ships | Net Tonnage | —Clearances— No. Ships | Net Tonnage |
|---|---|---|---|---|
| November, 1921 | 10 | 19,543 | 16 | 44,187 |
| October ..... | 6 | 10,417 | 13 | 37,447 |
| September .... | 3 | 5,152 | 19 | 56,024 |
| August ..... | 17 | 33,428 | 24 | 55,108 |
| July ..... | 10 | 17,469 | 16 | 33,712 |
| June ..... | 11 | 16,603 | 13 | 35,247 |
| May ..... | 5 | 9,507 | 16 | 30,377 |
| April ..... | 17 | 40,418 | 12 | 25,543 |
| March ..... | 13 | 19,924 | 14 | 29,618 |
| February ..... | 9 | 14,493 | 15 | 32,475 |
| January ..... | 11 | 21,591 | 20 | 38,179 |
| December, 1920. | 22 | 45,085 | 26 | 36,110 |
| November ..... | 32 | 61,216 | 18 | 28,108 |

## Galveston

(Exclusive of Domestic)

| Month | —Entrances— No. Ships | Net Tonnage | —Clearances— No. Ships | Net Tonnage |
|---|---|---|---|---|
| November, 1921 | 77 | 221,217 | 70 | 199,885 |
| October ..... | 72 | 219,001 | 77 | 227,982 |
| September .... | 75 | 214,391 | 99 | 295,869 |
| August ..... | 104 | 290,372 | 126 | 371,472 |
| July ..... | 75 | 204,159 | 92 | 270,335 |
| June ..... | 80 | 220,872 | 109 | 320,055 |
| May ..... | 83 | 227,518 | 95 | 254,287 |
| April ..... | 90 | 264,109 | 106 | 308,074 |
| March ..... | 93 | 254,755 | 118 | 292,682 |
| February ..... | 89 | 198,834 | 102 | 252,398 |
| January ..... | 104 | 252,980 | 136 | 339,008 |
| Dec., 1920..... | 126 | 310,129 | 132 | 334,068 |
| November .... | 119 | 295,607 | 135 | 354,571 |

## Portland, Oreg.

| Month | Deep Sea Arrivals No. Ships | Net Tonnage | Deep Sea Departures No. Ships | Net Tonnage |
|---|---|---|---|---|
| November, 1921 | 89 | 263,595 | 92 | 273,424 |
| October ..... | 100 | 302,941 | 97 | 292,067 |
| September .... | 89 | 238,484 | 78 | 234,287 |
| August ..... | 91 | 250,330 | 91 | 256,577 |
| July ..... | 75 | 236,945 | 74 | 229,228 |
| June ..... | 46 | 134,342 | 47 | 140,328 |
| May ..... | 53 | 166,878 | 51 | 159,331 |
| April ..... | 75 | 170,599 | 79 | 178,790 |
| March ..... | 81 | 186,397 | 76 | 166,382 |
| February ..... | 55 | 130,409 | 57 | 155,639 |
| January ..... | 63 | 171,655 | 68 | 188,972 |
| Dec., 1920.... | 56 | 132,157 | 58 | 151,019 |
| November .... | 59 | 140,573 | 60 | 121,554 |

## Houston

(Exclusive of Domestic)

| Month | —Entrances— No. ships | Net tonnage | —Clearances— No. ships | Net tonnage |
|---|---|---|---|---|
| November, 1921.. | 23 | 30,705 | 27 | 46,519 |
| October ..... | 17 | 36,682 | 16 | 32,223 |
| September ..... | 24 | 74,633 | 28 | 26,929 |
| August ..... | 24 | 15,558 | 21 | 58,492 |
| July ..... | 28 | 39,566 | 28 | 54,057 |
| June ..... | 27 | 33,405 | 19 | 33,187 |
| May ..... | 19 | 10,705 | 20 | 38,180 |
| April ..... | 25 | 44,706 | 26 | 43,695 |
| March ..... | 34 | 43,102 | 29 | 41,095 |
| February ..... | 13 | 13,643 | 15 | 23,094 |
| January ..... | 17 | 22,373 | 14 | 19,057 |

## Soo Canal Report

During November, 1195 vessels were locked through the Soo canal, carrying 3,265,479 net tons of freight. The aggregate vessel tonnage handled by the canal was 2,612,124. Compared with the freight movement for October, 6,652,395 tons, a decrease of 3,386,916 tons is shown. The movement during November, compared with the like period in 1920 when 9,419,580 tons were handled, decreased 6,154,101 tons.

The November canal tonnage figures for the past seven years follow:

| | Gross Tons |
|---|---|
| November, 1921 | 3,265,479 |
| November, 1920 | 9,419,580 |
| November, 1919 | 5,134,496 |
| November, 1918 | 8,513,511 |
| November, 1917 | 11,153,808 |
| November, 1916 | 8,751,336 |
| November, 1915 | 9,168,431 |

Of the total freight carried in November, 2,994,465 tons were carried through the American canal while the Canadian canal handled 271,014 tons.

The following tabulation gives the figures in detail up to Dec. 1, 1921 and 1920:

| | To Dec. 1, 1921 | To Dec. 1, 1920 |
|---|---|---|
| **EASTBOUND** | | |
| Lumber, M. feet B. M... | 192,906 | 192,797 |
| Flour, barrels..... | 8,116,020 | 7,032,703 |
| Wheat, bushels..... | 166,619,795 | 116,431,206 |
| Grain, bushels..... | 83,553,620 | 46,662,305 |
| Copper, net tons..... | 28,268 | 48,918 |
| Iron ore, net tons..... | 22,462,088 | 56,505,115 |
| Pig iron, net tons..... | 526 | 462 |
| Stone, net tons..... | 19,010 | 66,944 |
| General merchandise, net tons..... | 73,739 | 49,929 |
| Passengers, number..... | 29,320 | 33,639 |
| **WESTBOUND** | | |
| Coal, soft, net tons..... | 12,439,007 | 11,780,768 |
| Coal, hard, net tons..... | 2,218,228 | 2,008,216 |
| Iron ore, net tons..... | 9,820 | 137,819 |
| Mfgd. iron and steel, net tons..... | 34,565 | 70,239 |
| Salt, net tons..... | 59,565 | 99,157 |
| Oil, net tons..... | 301,633 | 352,474 |
| Stone, net tons..... | 468,237 | 488,763 |
| Gen'l merchandise, net tons..... | 431,644 | 487,305 |
| Passengers, number..... | 30,776 | 34,436 |
| **SUMMARY** | | |
| Vessel passages, number. | 11,325 | 18,433 |
| Registered tonnage, net.. | 30,241,338 | 57,290,136 |
| Freight | | |
| Eastbound, net tons..... | 30,538,055 | 62,352,476 |
| Westbound, net tons.... | 15,962,699 | 15,424,741 |
| Total freight, net tons... | 46,500,754 | 77,777,217 |

## Lake Michigan Receipts

Receipts of ore at Lake Michigan ports for November were 189,593 gross tons, as shown in the following record by ports:

| Port | Gross tons |
|---|---|
| South Chicago, Ill..... | 38,274 |
| East Jordan, Mich. ..... | ..... |
| Boyne City, Mich. ..... | ..... |
| Milwaukee ..... | ..... |
| Indiana Harbor, Ind..... | 111,605 |
| Gary, Ind. ..... | 39,714 |
| Total ..... | 189,593 |

# Activities in the Marine Field

**Latest News from Ships and Shipyards**

# Carriers See Better Season in 1922

BY MYERS L. FEISER

BETTER business for 1922 is the hope of lake shippers as the 1921 season came to a close. This hope is evidenced by the fact that some new and larger lake tonnage is being considered. Shipyards, of course, are especially interested in these plans. At present they are entering the winter with a fair amount of repair work booked. In addition, some small new construction was placed as evidenced by orders let for steel plates and inquiries for other steel material.

Ore shipments in 1921, approximately 22,000,000 tons, represented one of the poorest seasons ever known on the Great Lakes but estimates for 1922 indicate the total to be moved next season will be from 50 to 75 per cent greater. Along with this, also goes the belief coal and grain shipments will be heavier, responding to the better business trend which is expected to develop this year.

At the last minute, the demand for grain brought some ships out for extra trips. Some attractive charter rates were obtained, in several instances 6 cents being paid. Some chartering for 1922 already has been done. Considerable grain is being held aboard ships wintering at lower lake ports.

* * *

Fire destroyed the Canadian Towing & Wrecking Co.'s tug SARNIA at Port Arthur in November, the loss being $50,000.

* * *

Leaking forward but handled by her pumps, the steamer PHILIP MINCH, which went ashore at Holdrige near Detour early in December, reloaded her lightered cargo of coal and proceeded to Superior and then to drydock for repairs. She was released by the wrecker FAVORITE, the tug IOWA and the lighter RELIANCE.

* * *

Severe weather delayed the release of the steamer HYDRUS which went aground at Whisky island in the Straits of Mackinac early in December. She sustained little damage but went to drydock. Aground she was assisted by the wrecker FAVORITE and the tugs ALABAMA, GENERAL and PETER REISS.

* * *

The Shaganash island light and fog signal station in Lake Superior was destroyed by fire Nov. 30, according to notices sent out by George A. Marr, secretary of the Lake Carriers association.

* * *

Storm signals on the Great Lakes were discontinued Dec. 10.

* * *

Late in November, the steamers PARKS FOSTER and MANCHESTER CIVILIAN were in collision at Montreal, the latter being so badly damaged as to require drydock repairs.

* * *

The steamer I. L. ELLWOOD recently was towed from Toledo to Lorain where she will be repaired during the winter.

* * *

Officers elected at the annual meeting in Detroit of the Inland Water Lines association are as follows: President, Walter E. Campbell, president and manager of the Detroit & Windsor Ferry Co.; vice president, J. Stanley Morton, Benton Harbor, of the Graham & Morton line; and secretary and treasurer, Fred L. Leckie, Cleveland. The executive committee, besides the three officers, include W. J. McAlpin, Buffalo; J. C. Conley, Chicago; H. W. Thorpe, Chicago; Capt. J. S. Sanders, Milwaukee; A. A. Schantz, Detroit; T. L. Newman, Cleveland and H. H. Gildersleeve, Sarnia, Ont.

* * *

John E. Russell, Toronto, has been awarded the contract by underwriters for the release of the steamer ARAGON which was stranded Nov. 17 at Wrecked Point, Lake Ontario. The vessel was reported badly damaged.

* * *

A new day's record for the elevators at Fort William was established Nov. 30 when 5,316,000 bushels were handled. The elevators worked at capacity in order to handle the boats in the line up that day.

* * *

Repairing of the steamer TURRET CAPE has been begun at Kingston where she is docked. Thirty-five plates were to be removed.

* * *

Purchase recently was made by William D. Becker of the steamers BALTIC and SARGENT from the Interstate Steamship Co., the lake carrier subsidiary of the Jones & Laughlin Steel Co. The Becker Steamship Co. is to be organized to operate the boats.

# Iron Ore Movement on Great Lakes Drops 38 Per Cent

Iron ore shipments in 1921 were the lowest since 1904. The November movement of 406,451 tons brought the season's total to 22,300,726, a decrease of 36,127,354 tons from the 58,428,080 tons shipped in 1920. Discussion of the prospective movement for 1922 indicates an increase of 50 to 75 per cent, bringing the estimated 1922 shipments up to 35,000,000 to 40,000,000 tons. Decrease in shipments during 1921 started with the opening of the season, no improvement being shown at any time during the year. This condition came to a climax in November with an unusually low movement for that month. All of the ore had been delivered before the first of December, the first year for some time that shipments have not extended into the closing month of the year. November shipments show a decline of 4,899,287 tons when compared with the movement of November, 1920, when the total was 5,305,738 tons. Shipments by ports for the season and for November follow:

| Port | November 1921 | To Dec. 1 1921 |
|---|---|---|
| Escanaba | 86,771 | 1,806,656 |
| Marquette | 67,653 | 786,946 |
| Ashland | 81,597 | 2,264,705 |
| Superior | 157,865 | 4,991,278 |
| Duluth | ..... | 9,164,803 |
| Two Harbors | 12,565 | 3,286,338 |
| Total | 406,451 | 22,300,726 |
| 1921 decrease | 4,899,287 | 36,127,354 |

## Lake Erie Receipts

Lake Erie ports received 483,953 tons of iron ore in November as shown by figures compiled by MARINE REVIEW. Balance on dock Dec. 1 was 9,032,595 tons against 10,955,868 tons on Dec. 1, 1920. Detailed figures are:

| Port | Gross tons |
|---|---|
| Buffalo and Port Colborne | 132,235 |
| Erie | 17,999 |
| Conneaut | 48,762 |
| Ashtabula | 48,265 |
| Fairport | 29,504 |
| Cleveland | 126,093 |
| Lorain | 16,579 |
| Huron | 8,774 |
| Toledo | 23,191 |
| Detroit | 32,551 |
| Total | 483,953 |

Lake Superior was 0.33 foot lower than October, 0.28 lower than a year ago, and 0.39 foot below the average stage of November of the last 10 years. Lakes Michigan and Huron were 0.22 foot lower than October, 0.66 foot lower than a year ago, and 0.67 foot below the average stage of November of the last 10 years. Lake Erie was 0.01 foot higher than October, 0.15 foot lower than a year ago, and 0.12 foot below the average stage of November of the last 10 years. Lake Ontario was 0.26 foot lower than October, 0.38 foot lower than a year ago, 0.80 foot below the average stage of November of the last 10 years.

* * *

The United States lake survey reported the monthly mean stages of the Great Lakes for November as follows:

*Feet Above Mean Sea Level*

| | Oct. | Nov. |
|---|---|---|
| Superior | 602.53 | 602.20 |
| Michigan and Huron | 579.86 | 579.64 |
| St. Clair | 574.65 | 574.55 |
| Erie | 571.79 | 571.80 |
| Ontario | 245.11 | 244.85 |

# Along the Atlantic and Gulf Coasts

SIX steel barges built to carry aluminum ore from South America between New Orleans and St. Louis are being successfully used for transporting grain down the Mississippi river. This is the first independent barge line to appear on the Mississippi river. The barges, towed by the JAMES MORAN reached New Orleans shortly before the end of November with their third cargo of grain totaling 165,000 bushels. The fleet is operated by the James Moran Transportation Co. for the American Products Co., St. Louis.

* * *

As a result of the increased river movement of grain, work will be rushed on the marine leg of the public grain elevator at New Orleans. With the marine leg completed and in operation, the handling capacity of the elevator will be increased by about 100,000 bushels. Pouring of concrete for the lower base has started. Indications are that the grain elevator will be kept busy even with the new addition which will enable it to handle 4,500,000 to 5,000,000 bushels of grain per month. Corn is now being brought to New Orleans by water and the total grain shipments have shown a notable increase, far exceeding those of last winter.

* * *

A. M. Lockett, member of the New Orleans dock board and chairman of the industrial canal advisory committee, together with J. F. Coleman, engineer for the board, are on a tour of inspection of European ports. The purpose of the trip is to inspect harbor facilities at English, German, Danish and Dutch ports and to obtain data upon which a plan of operation for the industrial canal can be based. They will particularly examine the workings of the Manchester ship canal which is a project of similar scope and purpose.

* * *

The United Fruit Co. is contemplating re-establishing its tropical fruit service through the port of Galveston, according to Crawford H. Ellis, vice president and general manager at New Orleans. "Officials of the company have the matter under consideration," Mr. Ellis explained, "due to the fact that rates to Texas, Oklahoma, Kansas and other interior and western territory are lower through Galveston than through New Orleans."

* * *

Exchange continues to hamper business with foreign countries, although there is an improvement in the business outlook in South America, said Thomas F. Cunningham, president of the Mississippi Shipping Co., upon his return to New Orleans from a tour of that section in the interest of his company. "At the close of the war," Mr. Cunningham explained, "a world of goods was refused at foreign ports. These goods were placed in warehouses and ever since foreign business has been nibbling at these stocks with the result that they are now about depleted. Short orders are being placed principally now and the United States is getting most of these because this country is able to guarantee deliveries. European countries are making better prices but can not give guarantees on deliveries. While all the orders are for immediate shipment and generally are small, the business outlook is promising." The Mississippi Shipping Co. operates five 8000-ton vessels out of New Orleans in the South American trade.

* * *

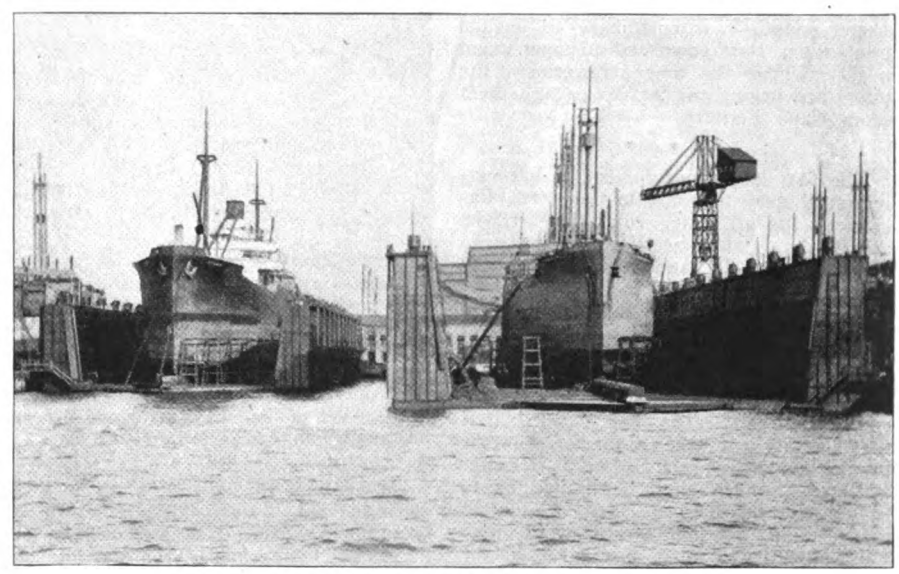
Announcement has been made recently of a new service from St. John, Canada, to Havana, with a call both south and northbound at Boston. The Canadian Pacific railroad will operate the new line. L. R. Hart, general agent, Boston, is in charge.

* * *

A regular service has recently been inaugurated by the Tri-National Steamship Co. between Boston, Halifax and St. John, N. B., with the steamer BORNHOLM.

* * *

After extended interruption in its passenger service as a result of the world war, the Cunard Steamship Co. now announces a resumption of service from Boston to Liverpool and Queenstown. The LACONIA, built to take the place of the ship of the same name formerly in the Boston service and sunk by a German submarine in 1917, has been assigned to the Boston service. She is 623 feet long, 73½ feet wide, of 21,000 gross tons, driven by steam turbines and capable of 16 knots. She has accommodations for 340 first, 340 second and 1500 third class passengers.



VIEW SHOWING DRYDOCKS AT SPARROWS POINT

* * *

The shipping board steamer LAKE ELSAH has recently been allocated to the Clyde Steamship Co., Boston, to take the place of the steamer LAKE FAVONIA, which the company has been operating in its Boston, Charleston and Jacksonville service.

* * *

Two more steamers of the American-Hawaiian Steamship Co., Boston, are to change their names. These are the FAIRMOUNT and FRANKLIN, formerly of the fleet of the Coastwise Transportation Co. The FAIRMOUNT is to become the NEBRASKAN and the FRANKLIN the NEVADAN.

* * *

It has recently been announced that Patterson, Wylde & Co., Boston, have inaugurated a service from Boston to Havre and Dunkirk, with the sailing of the steamer COLLAMER. This will give New England and Middle West shippers an opportunity to send their goods direct to northern France.

* * *

Plans are under way at Portland, Me., for equipping a thoroughly up-to-date testing and inspecting laboratory for application to the movement of grain

through the port, according to George F. Feeney, traffic manager of the Portland chamber of commerce.

* * *

The annual convention of the South Atlantic Ports association, an organization formed some time ago to increase the export and import business through the various south Atlantic ports, was held at Savannah, Ga., Nov. 15 to 18. Directors of the association include the secretaries and presidents of the chambers of commerce in the five ports along the south Atlantic coast below Virginia. The meeting was held in conjunction with the annual convention of the Atlantic Deeper Waterways association.

* * *

It is rumored that the Submarine Boat Corp., Boston, has under consideration the establishment of a coastwise freight service from Boston to Pacific coast ports.

* * *

Recently turned back to the shipping board by C. H. Sprague & Son, the steamer WORCESTER has been allocated to Rogers & Webb, Boston, and will be added to the fleet under operation by this company between Montreal, Hamburg, Rotterdam and Antwerp.

* * *

The Kennebec Navigation Co., Kennebec, Me., announces the recent purchase of the steamer SARAH WEEMS from the Baltimore & Carolina Steamship Co. The SARAH WEEMS was built in 1917, is 206 feet long, of 1521 gross and 924 net tons.

# Activities Along the Pacific Coast

PUGET sound pilots have again established service from Cape Flattery and have chartered the power schooner KING & WINGE for service. Although pilotage is not compulsory on Puget sound, it is customary to engage pilots from Port Townsend to upper sound ports. Under the new arrangement the pilots are urging masters to engage them from Cape Flattery.

* * *

The first large consignment of harvesting machinery to come to the north Pacific by the all water route has arrived at Portland and Seattle. This cargo originated at Chicago and was barged down the Mississippi to New Orleans where it was loaded on a steamer bound for the Columbia river and Puget sound.

* * *

Reversing a previous decision, the federal court at Seattle has decided that the liability of the Canadian Pacific in the wreck of the Alaskan steamer PRINCESS SOPHIA shall be limited as to passenger and baggage as well as to cargo. The decision affects more than 200 claimants who had been granted the privilege of bringing action for a total of $2,500,000 under the former decision. Under the new ruling these claimants will be allowed less than $10,000.

* * *

The port of Tacoma will soon award a $500,000 contract for constructing the cargo shed on Pier 2. From April to Nov. 1, port dock No. 1 handled 25,000,000 feet of lumber and the income of this property has been three times operating and overhead expense, not including interest on bonds.

* * *

Engineers are working out a puzzling problem at the mouth of the Willamette river below Portland, Oreg., where a shoal each year impeded deep sea shipping. A dike, 1200 feet in length, is being constructed. It will run out from the shore to separate the waters of the two rivers and prevent the deposit of silt.

* * *

For the first time in years, several cargoes of wheat have been dispatched from Portland, for India. The slump in the British market caused the diversion of several large steamers to ports in the Far East.

* * *

Fishermen of Vancouver, B. C., have decided to enlist the aid of airplanes in locating schools of fish next season. Last year airplanes were used in hunting seals in the north Pacific and two expert aviators will be brought from the banks of Newfoundland to operate off Vancouver island in 1922.

* * *

Willapa Harbor, Wash., which exports large quantities of lumber, is delighted over the discovery of a new channel over the bar at the mouth of the harbor. The minimum depth in this channel is reported as five fathoms, thus making it safe for large freighters to enter.

* * *

North Pacific shipping circles are still amused over the unusual mistake of the master of the Japanese steamer HAKATA MARU. When that vessel arrived at Vancouver, B. C., the captain thought he was still in the United States as he had the American flag flying from his masthead. When he was informed of his mistake apology was promptly made.

* * *

On her last voyage of the season from Bering sea, the steamer VICTORIA brought to Seattle $300,000 in gold bullion, two live reindeer for moving picture purposes and 258 reindeer carcasses shipped from Nome.

* * *

The record for one day's receipt was recently made at Prince Rupert, B. C., when over 700,000 pounds of halibut were landed by 16 American and Canadian fishing craft. The catches sold for 9 cents a pound.

* * *

On a bid of $10,500, the wooden motorship OREGON was recently sold at Seattle at marshal's sale. The vessel was under libel by several firms for a sum exceeding $100,000. The OREGON was built at Seattle during the early part of the war and her owners were offered $600,000 while the hull was building on the ways. Constant engine trouble caused the vessel's troubles and she has been idle in port for many months.

* * *

Official responsibility for the wrecking of the steamer ALASKA, which ran on Blunt's reef, the night of Aug. 6, with the loss of 42 lives, has been placed on Capt. Harry Hobey, of the ALASKA, who went down with his ship, in the decision of Steamboat Inspectors Frank Turner and Joseph Dolan, made public recently by Capt. John K. Bulger, supervising inspector. The mates on the ALASKA, William E. McClintock, Earl DuPree, J. P. Heikkila and M. J. Albin, were exonerated. Negligence in navigating the vessel at high speed through dense fog, is charged to the dead captain, who was on the bridge when the vessel hit the rocks.

* * *

Rumors which have been prevalent among San Francisco shipping circles that Swayne & Hoyt planned to discontinue some of their steamship operations, are unconditionally denied by the company, through Charles E. Brown, its manager.

* * *

Two hairpin bends in the Sacramento river, along the west boundary of Sutter Basin, are being straightened by the federal government, to improve the channel for power boat, small steamer and barge traffic.

* * *

The United Engineering Works, San Francisco, obtained the repair job on the Matson Navigation Co.'s steamer LURLINE, at $289,300. The LURLINE, which is one of the oldest of the Matson line ships, has been tied up in San Francisco for some weeks, but is to be given an entire overhauling. It is understood that bids received from the Atlantic coast firms were lower than those of the United, but that, rather than send the steamer to the eastern coast and then bring her back, the larger bid was accepted.

* * *

Toyo Kisen Kaisha announces a direct passenger service from Los Angeles to the Orient via Honolulu, and, possibly, Portland, Oreg., to start early in January.

* * *

Frank W. Relyea, newly appointed district director of operations of the shipping board, to succeed Harold H. Ebey, and with headquarters in San Francisco, arrived in the Golden Gate city in November. He announced that no immediate or drastic changes would be made in the office: He expects to make a survey of Pacific coast conditions, and of the development of trade with the Orient, south America and Australia.

* * *

Passenger department offices of the Pacific Mail Steamship Co. have been moved back to 508 California street, San Francisco, from 621 Market street. W. A. Young Jr., general passenger agent and his staff, were transferred, late in November, to the main offices of the company at the California street address.

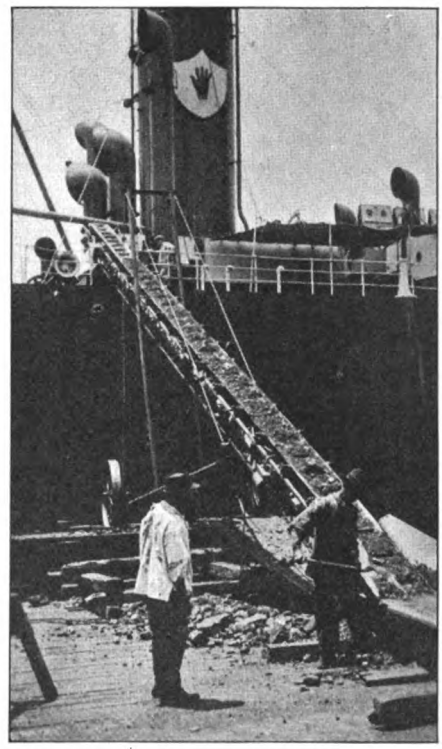
# Equipment Used Afloat, Ashore

## Conveyor for Cooling Vessel—Marine Patents

NEW means for coaling ships recently were developed by the Barber-Greene Co., Aurora, Ill., manufacturer of material handling machinery. By using a portable belt conveyor, the Tampa Coal Co., Tampa, Fla., has performed the mechanical fueling of ships at its dock at a comparatively low cost. With the conveyor shown in the accompanying illustration, steamers may be coaled at a rate of 400 tons a day. When handling stored coal, the fuel is taken from storage piles at the dock in wheelbarrows. These are counted and the amount of coal dumped on the conveyor can also be checked with the ship's weighing. Sometimes railroad cars arrive when ships are to be coaled. In that instance, a second conveyor takes the coal from a car, discharges on to the inclined conveyor and the fuel is put aboard. Each carload also acts as a check against the ship's weighing.

The storage piles themselves are built up by the conveyors as they coal from the cars. The company also uses the conveyors in loading trucks for domestic hauls.

Ships may be coaled much faster by machinery than by hand and heavy labor charges are eliminated, according to the manufacturer.



CONVEYOR ADAPTED FOR RAPID COALING OF OCEAN FREIGHTER

### Late Marine Patents

Copies of any one of these patents can be obtained by forwarding 25 cents in stamps to Siggers & Siggers, patent attorneys, National Union building, Washington, and mentioning MARINE REVIEW.

1380693 Composite ship, William B. S. Whaley, Malden, Mass., assignor to American Whaley Engine Co. Boston.

1380899 Boat, Clemmet Hansen, Brooklyn, N. Y.

1381407 Navigable vessel lock, C. O. Flynn, Duluth.

1382073 Submergible vessel, Louis Fort, Jersey City, N. J.

1382442 Rudder lock, Fred H. Rogers, Arlington, N. J.

1382809 Rudder attachment for boats, A. D. Stewart, Toronto, Ont.

1382955 Outboard motor for boats, J. F. J. Clementson, Malmo, Sweden.

1382051 Water elevating unit, E. E. Schumaker, Hillbert, Wis.

1383117 Method for casting the hulls of ships from concrete and floating said hulls into a launching bay, J. R. Holmgreen, San Antonio, Tex.

1383118 Mold for casting the hulls of concrete ships, Julius H. Holmgreen, San Antonio, Tex.

1383296 Star transit calculator and indicator for mariners, H. L. D. V. Giot, Le Havre, France.

1383392 Boat and the like, F. J. Elvy, Catford, London, England.

1383495 Outboard for motors, Harry W. Spencer, Toronto, Ont.

1383653 Apparatus for and process of constructing and launching concrete ships, William H. Mason, Haverford, Pa.

1383690 Method of detecting underwater vibrations, H. D. Arnold, Maplewood, N. J. assignor to Western Electric Co., Inc., New York.

1383551 Life saving apparatus for boats, F F. Lownder, Gisbourne, New Zealand.

1388829—Compass, Ole P. Noison, South Bend, Ind.

1388336—Underground and submarine antenna, Earl C. Hanson, Washington.

1388363—Device for attaching shackles to submerged objects, John A. Miller, South San Francisco, Cal.

1388479—Electrical water-level indicating apparatus, Walter D. Nickum, Glendale, Cal.

1388707—Turbine, John O. Heinze, Boyne City, Mich.

1388730—Submarine boat, John B. Locker, St. Louis, assignor of one-half to Joseph B. Crawford.

1389295—Charting apparatus for ships, R. F. de Tolna, New York.

1389338—Ship's davit, Robert H. Alexander, Willington Quay, and Thomas G. Graham, Sunderland, England.

1389555—Target following bomb-sight, Bernard L. Smith, Washington, Edward H. Barry, Newton, Mass., and Arthur H. Boettcher, Chicago, assignors to the government of the United States.

1389712—Motor propeller for boats, Arthur N. Thompson, Milwaukee, and Albert P. Knauber, Wauwatosa, Wis., assignors to the Needah Mfg. Corp., Needah, Wis.

1389793—Draft rigging, George E. Thackray, Westmont Borough, Pa.

1389865—Boat, Frederick L. Fox, Washington, assignor of one-fourth to Henry I. Meador, one-fourth to Donald B. Phillips and one-fourth to Charles D. Davis, Washington.

1389869—Launching device for lifeboats, George F. Hall, Providence, R. I.

1389995—Loading device, Richard R. Schutt, deceased, San Jose, Costa Rica, by John M. Keith executor, San Jose, Costa Rica, assignor to United Fruit Co., Boston.

1390056—Docking appliance, Joseph Nieberding, Baltimore.

1390097—Construction for raising sunken vessels, Pedro Donaire, Havana, Cuba.

1391836—Submarine wireless telegraph device Gabriel Klem, Gardenton, Manitoba, Can.

1392140—Apparatus for landing flying machines, Hugo Gernsback, New York.

1392279—Flying boat hull, Henry Kleckler, Garden City, N. Y., assignor to Curtiss Aeroplane & Motor Corp., Buffalo.

1392217—Unsinkable boat, Salvatore Ponzio, Syracuse, N. Y.

1392341—Feed water system for steamships, Charles Russell Lang, Glasgow, Scotland, assignor to G. & J. Weir, Ltd., Glasgow.

1392394—Steering gear for ships—Harry Brusseau, Bath, Me.

1392526—Anchor, Patrick J. Ryan, New York.

1392549—Machine for scarfing boiler and ship plates, cutting inclined keyways, or other purposes, John W. Barnes, Cheshire, England.

1392638—Ship-lock lift, Felix Gremmels, Mannheim, Germany, assignor to Technor Service Corp., New York.

1392771—Ships porthole scuttle and the like, Claue Laupretre, Nates, France, assignor of one-half to Societe Anonyme des Atelier et Chantiers de la Loire, Paris.

1392825—Compasses, Ramon Gonzales, Manila.

1393089—Multiple cable gland for bulkheads and the like and plastic filling compound therefor, James H. Collie, Birkenhead, England.

1393471—Submarine signaling, Raymond L. Wegel, New York, assignor to Western Electric Co., Inc., New York.

# Business News for the Marine Trade

Capitalized at $1,000,000, the Port Jefferson Shipyard Corp., Port Jefferson, L. I., N. Y., recently was incorporated to operate a shipbuilding and repair plant. The company is represented by the Delaware Registration Trust Co., 900 Market street, Wilmington, Del.

To manufacture sheet metal products and operate a general boiler and plate repair plant, the Elizabeth Boiler Repair & Sheet Metal Works, Inc., Elizabeth, N. J., recently was incorporated with $40,000 capital stock, by Walter W. Teuber, Frederick Blessing and John W. Ebbets, 320 Pearl street.

The Newark Oil Burning Devices Co., 78 William street, Newark, N. J., recently was organized to manufacture oil burners and allied equipment. Thomas Tracy is president of the company.

The Manitowoc Ship Building Corp., Manitowoc, Wis., has taken a contract to fabricate a new steel hull for the tug J. H. MEYER, to be 99 feet overall, with 22-foot beam and 12 feet 6 inches in depth. Present machinery and equipment will be used in the new hull, it is understood, but some replacement work will be necessary.

Freight handling machinery, hoisting and conveying equipment, etc., will be installed at the new freight transit shed to be constructed on the waterfront by the port commission, Tacoma, Wash., at an estimated cost of $500,000.

The Burrard Dry Dock Co., Ltd., North Vancouver, B. C., which was recently incor-

porated with $1,000,000 capital stock, by Clarence Wallace, John Coughlan and Robert C. Lennie, plans to construct a floating drydock with machine shops at Vancouver, B. C.

An inquiry was recently received by Canadian tool dealers from the Canadian Boat & Engine Exchange, Ltd., 43 Yonge street, Toronto, Ont., for a 20-inch lathe.

The New York Dock Co., 41 Whitehall street, New York, has completed plans for the erection of a 1-story power house, to be built at Furman and Montague streets, Brooklyn, N. Y.

The harbor engineer, room 11, City Hall, Camden, N. J., has taken bids for a 3-ton electric traveling crane, locomotive type; electric tractor with eight trucks and two portable electric winches for installation at the city harbor, Spruce street pier. George W. Bradley is chairman of the harbor committee.

Loading and unloading machinery, hoisting equipment, etc., will be installed on the new dock to be constructed by the Inman-Poulsen Lumber Co., Portland, Oreg., at its plant in South Portland.

The bureau of yards and docks, navy department, Washington, has plans under way for the erection of a new radio plant at Newport, Wash. It is understood bids for tower construction and other work will be called for soon.

Freight handling and conveying equipment, etc., will be installed on the new pier to be constructed by the Grays Harbor port commission, Aberdeen, Wash., at an estimated cost of $150,000. The Grays Harbor Construction Co. will build the structure.

Property 99 x 130 feet on East Thirty-first street, New York, has been leased by the Loening Aeronautical Engineering Co., 351 West Fifty-second street, New York, as a site for a new plant in which it will manufacture airplanes, flying boats, etc.

The Emergency Fleet corporation, Washington, has called for bids for proposed repairs to the steamship LEVIATHAN. It is understood new power plant, oil burning equipment and other apparatus will be required. The International Mercantile Marine Co., 9 Broadway, New York, is acting as agent and plans are on file at this office.

The 2-story plant of C. C. Galbraith & Son, Keyport, N. J., manufacturer of marine equipment, lifeboats, etc., recently was damaged by fire. The loss was estimated at $50,000, including equipment.

Mechanical equipment, hoisting and conveying machinery will be installed at the new terminal plant to be established by William F. Shupe Co., 85 Day street, Orange, N. J., on the former government property at Kearny, N. J. The company has leased 30 acres with 1500-foot dock frontage on the Passaic river, improved with four buildings, each containing about 50,000 square feet of floor space.

The Emergency Fleet corporation has perfected arrangements for the liquidation of its holdings at the Pusey & Jones shipyard, Gloucester City, N. J., and will dispose of all supplies and surplus equipment now at the yard.

Freight handling equipment, etc., will be installed by the city commission, Pensacola, Fla., in connection with the development of municipal terminal facilities in the Palafox wharf section. The work is estimated to cost about $200,000.

Capitalized at $100,000, the Javery Steamship Corp., New York, recently was incorporated to engage in trade, commerce and navigation, by D. Dougherty and others.

The Yankton Steamship Corp., New York, recently was chartered with $10,000 capital stock, by A. A. Tanos, S. O. Olshanska and E. B. Dorsett. The company is represented by Barker, Donahue, Anderson & Wylie, 27 William street, New York.

To own and operate boats, the Long Island Navigation Co., Inc., recently was incorporated in Delaware with a capital stock of $200,000.

A Delaware charter has been granted the Seaboard Coal Co., which has been incorporated with a capital stock of $1,500,000. The company is represented by the Capital Trust Co., Dover, Del.

The Hampton Roads Pan-American Steamship Co., Norfolk, Va., recently was incorporated under the laws of Virginia with a capital stock of $100,000.

The Sun Shipbuilding Co. has been awarded a contract by the Philadelphia & Camden Ferry Co. for the construction of two all-steel ferry boats for the Philadelphia-Camden service. The Ferry company also authorized the enlargement and improvement of slips on both sides of the river in order to better accommodate the ferry traffic between the two cities. It is expected the new boats will be ready by next summer.

Capitalized at £10,000 to carry on business as ship and tug owner, etc., the Bulk Oil Steamship Co., Ltd., recently was incorporated in England.

The Job Shipbuilding Corp., Machias, Me., recently filed a petition in bankruptcy with debts of $100,000.

It is understood the Emergency Fleet corporation will foreclose a mortgage of approximately $913,000 on the plant of the Atlantic Corp., at Portsmouth, N. H.

The United States district court at Portland, Me., recently confirmed the sale of the East Coast Fisheries Co. and East Coast Fisheries Products Co. to the Deep Sea Fisheries, Inc. The new corporation has acquired all the assets of the two companies with the exception of certain claims. It is understood stockholders of the old companies will receive one share of new no par value stock for each share of the old preferred stock and one share of new stock for each $100 paid on such subscription. Subscribers for old common stock will receive one share for each $120 paid in on the old common stock.

## Business Changes

Discontinuance of the forwarding and brokerage departments of Ceyelin & Co., 108 South Fourth street, Philadelphia, with a branch at 8-10 Bridge street, New York, has been announced. The company will confine its activities to that of steamship, operating and chartering agents.

* * *

The East Coast Ship Co., Boothway Harbor, Me., has been purchased by Fred M. Cook and Irving W. Reed who have organized the Reed-Cook Construction Co. to build and repair ships.

* * *

With E. L. Fairbanks as resident agent, the Congress line has opened offices at Seattle. The Northwest Shipping Co., Portland, Oreg., of which A. C. Stubbs is vice president and general manager, has the north Pacific agency of the Congress line which has just re-established its service after a lengthy controversy with the shipping board, over the purchase of ships from the government.

## New Trade Publications

ENGINE—The Hadfield-Penfield Steel Co., Bucyrus, O., has published a 24-page booklet in which a 2-cycle fuel oil engine of the horizontal type is described and illustrated. This engine is of the high-compression type operating on the diesel principle. Engines of this type are adapted for any power service, including service where close regulation is necessary. Complete details are given in the booklet.

BAND SAW—The Clark Tool Works, Inc., Belmont, N. Y., has published a 12-page booklet in which a compound metal cutting band saw is described and illustrated. The machine uses a band saw one inch wide and 15 feet 6 inches long, and cuts on both sides at the same time; cutting down on the right hand side and up on the left. Specifications and other data are given.

ELECTRIC HOIST—The Shepard Electric Crane & Hoist Co., Montour Falls, N. Y., is circulating a folder in which a small electric hoist is described and illustrated. The hoist is made in capacities of 1000 and 2000 pounds. It is equipped with a motor especially designed for hoisting service and can be furnished for alternating or direct current. The leaflet lists the various uses to which the hoist is adapted.

FUEL OIL ENGINES—A fuel oil engine of the vertical type is described and illustrated in a 30-page booklet recently published by the Hadfield-Penfield Steel Co., Bucyrus, O. Complete details as to construction, operation, etc., are given as well as specifications and other data.

GRINDER—The Precision & Thread Grinder Mfg. Co., Philadelphia, is circulating a series of folders in which attention is called to its multigraduated precision grinder and precision thread lead variator. With the variator, it is said, one can cut metric threads or threads of odd or unusual lead on any lathe.

DRAFT SQUARE—The Lopez Mfg. Co., Chicago, is circulating two small leaflets in which attention is called to its draft square. According to the folder this square comprises seven tools in one. One folder contains instructions as to use of the square.

VALVE—The Dielmore Valve Co., Tacoma, Wash., has published a 4-page folder in which an automatic drain and relief valve is described and illustrated. This valve is for single and compound air pumps on locomotives, governed engines, stationary pumps and steam winches. Directions for connecting the valve are given.

CHECK VALVE—The William Powell Co., Cincinnati, has published a folder in which a triple acting, automatic, nonreturn, regulating boiler check valve is described and illustrated. According to the folder this valve closes in the event of blowing out a tube, isolating the boiler in trouble. It also closes instantly in case of accident by an unusual or sudden movement of steam in either direction. It closes by gravity when boilers are cooled down and will not reopen until pressures are created and equalized in the boilers. Other details are given.

SHIP TONNAGE—The Crandall Engineering Co., Boston, is circulating an illustrated 18-page booklet in which an explanation of ship tonnage and the method of determining docking weight is given. The information given is interesting and valuable.